RULE 1200-1-11-.06 STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

(1) General [40 CFR 264 Subpart A]

(a) Purpose

1. The purpose of this Rule is to establish standards which define the acceptable management of hazardous wastes in Tennessee. These standards provide a basis upon which permit applications for facilities will be evaluated.

(b) Applicability

1. The standards in this Rule apply to owners and operators of all facilities which treat, store, or dispose of hazardous wastes, except as specifically provided otherwise in this Rule or Rule 1200-1-11-.02.

2. The requirements of this Rule do not apply to:

(i) The owner or operator of a facility permitted or registered by the Commissioner or Board, as appropriate, pursuant to the "Tennessee Solid Waste Disposal Act" (T.C.A. §§68-211-101 through §68-211-111, and §68-211-301) to manage municipal or industrial waste, if the only hazardous waste the facility treats, stores, or disposes of is excluded from regulation under this Rule by Rule 1200-1-11-.02(1)(e) as a "small quantity".

(ii) The owner or operator of a facility managing recyclable materials described in Rule 1200-1-11-.02(1)(f)1(ii),(iii) and (iv) (except to the extent they are referred to in Rule 1200-1-11-.11 or Rule 1200-1-11-.09(3),(6),(7) or (8).

(iii) A generator accumulating waste on-site in compliance with Rule 1200-1-11-.03(4)(e), unless the generator is accumulating the waste in a facility otherwise subject to this Rule.

(iv) The owner or operator of a totally enclosed treatment facility, as defined in Rule 1200-1-11-.01(2).

(v) The owner or operator of one of the following units, as defined in Rule 1200-1-11-.01(2)(a), provided that if the owner or operator is diluting hazardous ignitable (D001) wastes (other than the D001 High TOC Subcategory defined in Rule 1200-1-11-.10(3)(a), Table Treatment Standards for Hazardous Wastes), or reactive (D003) waste, to remove the characteristic before land disposal, the owner/operator must comply with the requirements set out in part (2)(h)2 of this Rule:

(I) an elementary neutralization unit;

(II) an on-site wastewater treatment unit; or

(III) an off-site wastewater treatment unit located at a facility otherwise required to have a permit issued pursuant to Rule 1200-1-11-.07(7).

(vi) The addition of absorbent material to waste in a container (as defined in Rule 1200-1-11-.01(2)) or the addition of waste to absorbent material in a container,

provided that these actions occur at the time waste is first placed in the container, and the owners or operators are in compliance with part (2)(h)2 of this Rule and subparagraphs (9)(b) and (c) of this Rule.

(vii) (I) Except as provided in item (II) of this subpart, a person engaged in treatment or containment activities during immediate response to any of the following situations:

I. A discharge of a hazardous waste;

II. An imminent and substantial threat of a discharge of hazardous waste; and

III. A discharge of a material which, when discharged, becomes a hazardous waste.

IV. An immediate threat to human health, public safety, property, or the environment, from the known or suspected presence of military munitions, other explosive material, or an explosive device, as determined by an explosive or munitions emergency response specialist as defined in Rule 1200-1-11-.01(2)(a).

(II) An owner or operator of a facility otherwise regulated by this Rule must comply with all applicable requirements of paragraphs (3) and (4) of this Rule.

(III) Any person who is covered by item (I) of this subpart and who continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to all applicable requirements of this Rule and Rule 1200-1-11-.07 for those activities.

(IV) In the case of an explosives or munitions emergency response, if a Federal, State, Tribal or local official acting within the scope of his or her official responsibilities, or an explosives or munitions emergency response specialist, determines that immediate removal of the material or waste is necessary to protect human health or the environment, that official or specialist may authorize the removal of the material or waste by transporters who do not have Installation Identification Numbers and without the preparation of a manifest. In the case of emergencies involving military munitions, the responding military emergency response specialist's organizational unit must retain records for three years identifying the dates of the response, the responsible persons responding, the type and description of material addressed, and its disposition.

(viii) A transporter storing manifested shipments of hazardous waste in containers meeting applicable DOT and Tennessee Regulatory Commission regulations for packaging at a transfer facility for a period of ten days or less.

(ix) A farmer disposing of waste pesticides from his own use in compliance with Rule 1200-1-11-.02(l)(b)1(ii)(II).

(x) Universal waste handlers and universal waste transporters (as defined in Rule 1200-1-11-.01(2)(a)) handling the wastes listed in Rule 1200-1-11-.12(1)(a). These handlers are subject to regulation under Rule 1200-1-11-.12, when handling the universal wastes listed in Rule 1200-1-11-.12(1)(a).

3. The requirements of this Rule apply to a person disposing of hazardous waste by means of underground injection subject to permits issued under the Tennessee Water Quality Control Act (T.C.A. §§69-3-101 et seq.), through Chapter 1200-4-6 of the Rules of the State of Tennessee, and under Part C of the Federal Safe Drinking Water Act (42 U.S.C. 3001 et seq.) only to the extent they are included in a permit-by-rule granted to such a person under Rule 1200-1-11-.07(1)(c).

4. The requirements of this Rule apply to the owner or operator of a POTW which treats, stores, or disposes of hazardous waste only to the extent they are included in a permit-by-rule granted to such a person under Rule 1200-1-11-.07(1)(c).

5. The requirements of this Rule apply to the owner or operator of an on-site wastewater treatment unit, or to the owner or operator of an off-site wastewater treatment unit where the only wastes received from off-site are from facilities owned or operated by the same manufacturing corporation or subsidiaries of such corporation or from product distribution facilities operating under contract to that manufacturing corporation or subsidiaries only to the extent they are included in a permit-by-rule granted to such a person under Rule 1200-1-11-.07(1)(c).

6. The requirements of this Rule apply to the owner or operator of a transfer facility where manifested shipments of hazardous waste in containers meeting applicable DOT and the Tennessee Regulatory Commission (TRC) packaging regulations are stored for a period of greater than 48 hours but less than ten days only to the extent they are included in a permit-by-rule granted to such a person under Rule 1200-1-11- .07(1)(c).

7. The requirements of this Rule apply to owners or operators of all facilities which treat, store, or dispose of hazardous wastes referred to in Rule 1200-1-11-.10.

8. Rule 1200-1-11-.09(13)(f) identifies when the requirements of this Rule apply to the storage of military munitions classified as solid waste under Rule 1200-1-11-.09(13)(c). The treatment and disposal of hazardous waste military munitions are subject to the applicable permitting, procedural, and technical standards in Rules 1200-1-11-.01 through .10.

9. The requirements of paragraphs (2), (3), and (4) of this Rule and subparagraph (6)(l) of this Rule do not apply to remediation waste management sites. (However, some remediation waste management sites may be a part of a facility that is subject to a traditional RCRA permit because the facility is also treating, storing or disposing of hazardous wastes that are not remediation wastes. In these cases, paragraphs (2), (3), and (4) and subparagraph (6)(l) of this Rule do apply to the facility subject to the traditional RCRA permit.) Instead of the requirements of paragraphs (2), (3), and (4) of this Rule, owners or operators of remediation waste management sites must:

   (i) Obtain an Installation Identification Number by applying to the Director using EPA Form 8700-12;

   (ii) Obtain a detailed chemical and physical analysis of a representative sample of the hazardous remediation wastes to be managed at the site. At a minimum, the analysis must contain all of the information which must be known to treat, store

or dispose of the waste according to this Rule and Rule 1200-1-11-.10, and must be kept accurate and up to date;

(iii) Prevent people who are unaware of the danger from entering, and minimize the possibility for unauthorized people or livestock to enter onto the active portion of the remediation waste management site, unless the owner or operator can demonstrate to the Commissioner that:

(I) Physical contact with the waste, structures, or equipment within the active portion of the remediation waste management site will not injure people or livestock who may enter the active portion of the remediation waste management site; and

(II) Disturbance of the waste or equipment by people or livestock who enter onto the active portion of the remediation waste management site, will not cause a violation of the requirements of this Rule;

(iv) Inspect the remediation waste management site for malfunctions, deterioration, operator errors, and discharges that may be causing, or may lead to, a release of hazardous waste constituents to the environment, or a threat to human health. The owner or operator must conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment, and must remedy the problem before it leads to a human health or environmental hazard. Where a hazard is imminent or has already occurred, the owner/operator must take remedial action immediately;

(v) Provide personnel with classroom or on-the-job training on how to perform their duties in a way that ensures the remediation waste management site complies with the requirements of this Rule, and on how to respond effectively to emergencies;

(vi) Take precautions to prevent accidental ignition or reaction of ignitable or reactive waste, and prevent threats to human health and the environment from ignitable, reactive and incompatible waste;

(vii) For remediation waste management sites subject to regulation under paragraphs (9) through (15) and (27) of this Rule, the owner/operator must design, construct, operate, and maintain a unit within a 100-year floodplain to prevent washout of any hazardous waste by a 100-year flood, unless the owner/operator can meet the demonstration of part (2)(i)2 of this Rule;

(viii) Not place any non-containerized or bulk liquid hazardous waste in any salt dome formation, salt bed formation, underground mine or cave;

(ix) Develop and maintain a construction quality assurance program for all surface impoundments, waste piles and landfill units that are required to comply with parts (11)(b)3 and 4, (12)(b)3 and 4, and (14)(b)3 and 4 of this Rule at the remediation waste management site, according to the requirements of subparagraph (2)(j) of this Rule;

(x) Develop and maintain procedures to prevent accidents and a contingency and emergency plan to control accidents that occur. These procedures must address proper design, construction, maintenance, and operation of remediation waste management units at the site. The goal of the plan must be to minimize the

possibility of, and the hazards from a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water that could threaten human health or the environment. The plan must explain specifically how to treat, store and dispose of the hazardous remediation waste in question, and must be implemented immediately whenever a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment;

(xi) Designate at least one employee, either on the facility premises or on call (that is, available to respond to an emergency by reaching the facility quickly), to coordinate all emergency response measures. This emergency coordinator must be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person must have the authority to commit the resources needed to carry out the contingency plan;

(xii) Develop, maintain and implement a plan to meet the requirements in subparts 9(ii) through 9(vi) and 9(ix) through 9(x) of this subparagraph; and

(xiii) Maintain records documenting compliance with subparts 9(i) through 9(xii) of this subparagraph.

(c) Relationship to Interim Status Standards [40 CFR 264.3]

A facility owner or operator who has fully complied with the requirements for interim status - as defined in Rule 1200-1-11-.07(3) - must comply with the regulations specified in Rule 1200-1-11-.05 in lieu of the regulations of this Rule, until final administrative disposition of his permit application is made, except as provided under paragraph (22) of this Rule.

(d) Waivers

Any standard in this Rule may be waived by the Commissioner if the owner or operator can demonstrate to the satisfaction of the Commissioner that the standard is inapplicable, inappropriate, or unnecessary to his facility, or that it is equaled in effect by other procedures or mechanisms utilized at the facility. Any such waiver must be granted in writing.

(2) General Facility Standards [40 CFR 264 Subpart B]

(a) Applicability [40 CFR 264.10]

1. The regulations in this subpart apply to owners and operators of all hazardous waste facilities, except as provided in subparagraphs (1)(b) and (d) of this Rule and in part 2 of this subparagraph.

2. Part (i)2 of this paragraph applies only to facilities subject to regulation under paragraphs (9)-(15) and (27) of this Rule.

(b) Identification Number

Installation Identification Numbers will be assigned to facilities as part of the permit issued pursuant to Rule 1200-1-11-.07.

(c) Required Notices [40 CFR 264.12]

1. (i) The owner or operator of a facility that has arranged to receive hazardous waste from a foreign source must notify the Commissioner in writing at least four weeks in advance of the date the waste is expected to arrive at the facility. Notice of subsequent shipments of the same waste from the same foreign source is not required.

   (ii) (Reserved) [40 CFR 264.12(a)(2)]

2. The owner or operator of a facility that receives hazardous waste from an off-site source (except where the owner or operator is also the generator) must inform the generator in writing that he has the appropriate permit(s) for, and will accept, the waste the generator is shipping. The owner or operator must keep a copy of this written notice as part of the operating record.

3. Before transferring ownership or operation of a facility during its operating life, or of a disposal facility during the post-closure care period, the owner or operator must notify the new owner or operator in writing of the requirements of this Rule, Rule 1200-1-11-.07 and Rule 1200-1-11-.08.

(Comment: An owner's or operator's failure to notify the new owner or operator of the requirements of this part in no way relieves the new owner or operator of his obligation to comply with all applicable requirements.)

(d) General Waste Analysis [40 CFR 264.13]

1. (i) Before an owner or operator treats, stores, or disposes of any hazardous wastes, or nonhazardous wastes if applicable under subparagraph (7)(d)4 of this Rule, he must obtain a detailed chemical and physical analysis of a representative sample of the wastes. At a minimum, the analysis must contain all the information which must be known to treat, store, or dispose of the waste in accordance with this Rule and Rule 1200-1-11-.10.

   (ii) The analysis may include data developed under Rule 1200-1-11-.02, and existing published or documented data on the hazardous waste or on hazardous waste generated from similar processes.

(Comment: For example, the facility's records of analyses performed on the waste before the effective date of these regulations, or studies conducted on hazardous waste generated from processes similar to that which generated the waste to be managed at the facility, may be included in the data base required to comply with subpart (i) of this part. The owner or operator of an off-site facility may arrange for the generator of the hazardous waste to supply part of the information required by subpart (i) of this part, except as otherwise specified in Rule 1200-1-11-.10(1)(g)2 and 3. If the generator does not supply the information, and the owner or operator chooses to accept a hazardous waste, the owner or operator is responsible for obtaining the information required to comply with this subparagraph.)

   (iii) The analysis must be repeated as necessary to ensure that it is accurate and up to date. At a minimum, the analysis must be repeated:

      (I) When the owner or operator is notified, or has reason to believe, that the process or operation generating the hazardous wastes, or non-hazardous wastes if applicable under subparagraph (7)(d)4 of this Rule, has changed; and

      (II) For off-site facilities, when the results of the inspection required in subpart (iv) of this part indicate that the hazardous waste received at

the facility does not match the waste designated on the accompanying manifest or shipping paper.

(iv) The owner or operator of an off-site facility must inspect and, if necessary, analyze each hazardous waste movement received at the facility to determine whether it matches the identity of the waste specified on the accompanying manifest or shipping paper.

2. The owner or operator must develop and follow a written waste analysis plan which describes the procedures which he will carry out to comply with part 1 of this subparagraph. He must keep this plan at the facility. At a minimum, the plan must specify:

(i) The parameters for which each hazardous waste, or non-hazardous waste if applicable under subparagraph (7)(d)4 of this Rule, will be analyzed and the rationale for the selection of these parameters (i.e., how analysis for these parameters will provide sufficient information on the waste's properties to comply with part 1 of this subparagraph).

(ii) The test methods which will be used to test for these parameters.

(iii) The sampling method which will be used to obtain a representative sample of the waste to be analyzed. A representative sample may be obtained using either:

(I) One of the sampling methods described in Appendix I of Rule 1200-1-11-.02(5); or

(II) An equivalent sampling method.

(Comment: See Rule 1200-1-11-.01(3)(b) for related discussion.)

(iv) The frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up to date.

(v) For off-site facilities, the waste analyses that hazardous waste generators have agreed to supply.

(vi) Where applicable, the methods that will be used to meet the additional waste analysis requirements for specific waste management methods as specified in subparagraphs (2)(h), (14)(o), and (15)(b) and parts (30)(e)4 and (31)(n)4 and subparagraph (32)(d) of this Rule and Rule 1200-1-11-.10(1)(g).

(vii) For surface impoundments exempted from land disposal restrictions under Rule 1200-1-11-.10(1)(d)1, the procedures and schedules for:

(I) The sampling of impoundment contents;

(II) The analysis of test data; and

(III) The annual removal of residues which are not delisted under Rule 1200-1-11-.01(3)(c) or which exhibit a characteristic of hazardous waste and either:

I. Do not meet applicable treatment standards of Rule 1200-1-11-.10(3); or

II. Where no treatment standards have been established:

A. Such residues are prohibited from land disposal under Rule 1200-1-11-.10(2)(c); or

B. Such residues are prohibited from land disposal under Rule 1200-1-11-.10(2)(d)6.

(viii) For owners and operators seeking an exemption to the air emission standards of paragraph (32) of this Rule in accordance with subparagraph (32)(c) of this Rule.

(I) If direct measurement is used for the waste determination, the procedures and schedules for waste sampling and analysis, and the results of the analysis of test data to verify the exemption.

(II) If knowledge of the waste is used for the waste determination, any information prepared by the facility owner or operator or by the generator of the hazardous waste, if the waste is received from off-site, that is used as the basis for knowledge of the waste.

3. For off-site facilities, the waste analysis plan required in part 2 of this subparagraph must also specify the procedures which will be used to inspect and, if necessary, analyze each movement of hazardous waste received at the facility to ensure that it matches the identity of the waste designated on the accompanying manifest or shipping paper. At a minimum, the plan must describe:

(i) The procedures which will be used to determine the identity of each movement of waste managed at the facility;

(ii) The sampling method which will be used to obtain a representative sample of the waste to be identified, if the identification method includes sampling; and

(iii) The procedures that the owner or operator of an off-site landfill receiving containerized hazardous waste will use to determine whether a hazardous waste generator or treater has added a biodegradable sorbent to the waste in the container.

(Comment: Rule 1200-1-11-.07 requires that the waste analysis plan be submitted with part B of the permit application.)

(e) Security [40 CFR 264.14]

1. The owner or operator must prevent the unknowing entry, and minimize the possibility for the unauthorized entry, of persons or livestock onto the active portion of his facility, unless he can demonstrate to the Commissioner that:

(i) Physical contact with the waste, structures, or equipment within the active portion of the facility will not injure unknowing or unauthorized persons or livestock which may enter the active portion of a facility; and

(ii) Disturbance of the waste or equipment, by the unknowing or unauthorized entry of persons or livestock onto the active portion of a facility, will not cause a violation of the requirements of this Rule.

(Comment: Rule 1200-1-11-.07 requires that an owner or operator who wishes to make the demonstration referred to above must do so with part B of the permit application.)

2. Unless the owner or operator has made a successful demonstration under subparts 1(i) and 1(ii) of this subparagraph, a facility must have:

(i) A 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel) which continuously monitors and controls entry onto the active portion of the facility; or

(ii) (I) An artificial or natural barrier (e.g., a fence in good repair or a fence combined with a cliff), which completely surrounds the active portion of the facility; and

(II) A means to control entry, at all times, through the gates or other entrances to the active portion of the facility (e.g., an attendant, television monitors, locked entrance, or controlled roadway access to the facility).

(Comment: The requirements of part 2 of this subparagraph are satisfied if the facility or plant within which the active portion is located itself has a surveillance system, or a barrier and a means to control entry, which complies with the requirements of subparts 2(i) and 2(ii) of this subparagraph.)

3. Unless the owner or operator has made a successful demonstration under subparts 1(i) and 1(ii) of this subparagraph, a sign with the legend, "Danger -- Unauthorized Personnel Keep Out", must be posted at each entrance to the active portion of a facility, and at other locations, in sufficient numbers to be seen from any approach to this active portion. The legend must be written in English and in any other language predominant in the area surrounding the facility (e.g., facilities in counties bordering the Canadian province of Quebec must post signs in French; facilities in counties bordering Mexico must post signs in Spanish), and must be legible from a distance of at least 25 feet. Existing signs with a legend other than "Danger -- Unauthorized Personnel Keep Out" may be used if the legend on the sign indicates that only authorized personnel are allowed to enter the active portion, and that entry onto the active portion can be dangerous.

(Comment: See part (7)(h)2 of this Rule for discussion of security requirements at disposal facilities during the post-closure care period.)

(f) General Inspection Requirements [40 CFR 264.15]

1. The owner or operator must inspect his facility for malfunctions and deterioration, operator errors, and discharges which may be causing or may lead to:

(i) Release of hazardous waste constituents to the environment or

(ii) A threat to human health.

The owner or operator must conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment.

2. (i) The owner or operator must develop and follow a written schedule for inspecting monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment (such as dikes and sump pumps) that are important to preventing, detecting, or responding to environmental or human health hazards.

(ii) He must keep this schedule at the facility.

(iii) The schedule must identify the types of problems (e.g., malfunctions or deterioration) which are to be looked for during the inspection (e.g., inoperative sump pump, leaking fitting, eroding dike, etc.).

(iv) The frequency of inspection may vary for the items on the schedule. However, the frequency should be based on the rate of deterioration of the equipment and the probability of an environmental or human health incident if the deterioration, malfunction, or any operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, must be inspected daily when in use. At a minimum, the inspection schedule must include the items and frequencies called for in subparagraphs (9)(e), (10)(d), (10)(f), (11)(g), (12)(e), (13)(i), (14)(d), (15)(h), (27)(c), (30)(d), (31)(c), (31)(d), (31)(i), and (32)(d) through (32)(j) of this Rule, where applicable.

(Comment: Rule 1200-1-11-.07 requires the inspection schedule to be submitted with part B of the permit application. The Department will evaluate the schedule along with the rest of the application to ensure that it adequately protects human health and the environment. As part of this review, the Department may modify or amend the schedule as may be necessary.)

3. The owner or operator must remedy any deterioration or malfunction of equipment or structures which the inspection reveals on a schedule which ensures that the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, remedial action must be taken immediately.

4. The owner or operator must record inspections in an inspection log or summary. He must keep these records for at least three years from the date of inspection. At a minimum, these records must include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

(g) Personnel Training [40 CFR 264.16]

1. (i) Facility personnel must successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of this Rule. The owner or operator must ensure that this program includes all the elements described in the document required under subpart 4(iii) of this subparagraph.

(Comment: Rule 1200-1-11-.07 requires that owners and operators submit with part B of the permit application, an outline of the training program used (or to be used) at the facility and a brief description of how the training program is designed to meet actual job tasks.)

(ii) This program must be directed by a person trained in hazardous waste management procedures, and must include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed.

(iii) At a minimum, the training program must be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including, where applicable:

(I) Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;

(II) Key parameters for automatic waste feed cut-off systems;

(III) Communications or alarm systems;

(IV) Response to fires or explosions;

(V) Response to ground-water contamination incidents; and

(VI) Shutdown of operations.

2. Facility personnel must successfully complete the program required in part 1 of this subparagraph within six months after the effective date of these regulations or six months after the date of their employment or assignment to a facility, or to a new position at a facility, whichever is later. Employees hired after the effective date of these regulations must not work in unsupervised positions until they have completed the training requirements of part 1 of this subparagraph.

3. Facility personnel must take part in an annual review of the initial training required in part 1 of this subparagraph.

4. The owner or operator must maintain the following documents and records at the facility:

(i) The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job;

(ii) A written job description for each position listed under subpart (i) of this part. This description may be consistent in its degree of specificity with descriptions for other similar positions in the same company location or bargaining unit, but must include the requisite skill, education, or other qualifications, and duties of employees assigned to each position;

(iii) A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under subpart (i) of this part;

(iv) Records that document that the training or job experience required under parts 1,2, and 3 of this subparagraph has been given to, and completed by, facility personnel.

5. Training records on current personnel must be kept until closure of the facility; training records on former employees must be kept for at least three years from the date the employee last worked at the facility. Personnel training records may accompany personnel transferred within the same company.

(h) General Requirements for Ignitable, Reactive, or Incompatible Wastes [40 CFR 264.17]

1. The owner or operator must take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. This waste must be separated and protected from sources of ignition or reaction including but not limited to: open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (static, electrical, or mechanical), spontaneous ignition (e.g., from heat-producing chemical reactions), and radiant heat. While ignitable or reactive waste is being handled, the owner or operator must confine smoking and open flame to specially designated locations. "No Smoking" signs must be conspicuously placed wherever there is a hazard from ignitable or reactive waste.

2. Where specifically required by other sections of this part, the owner or operator of a facility that treats, stores or disposes ignitable or reactive waste, or mixes incompatible waste or incompatible wastes and other materials, must take precautions to prevent reactions which:

   (i) Generate extreme heat or pressure, fire or explosions, or violent reactions;

   (ii) Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment;

   (iii) Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;

   (iv) Damage the structural integrity of the device or facility;

   (v) Through other like means threaten human health or the environment.

3. When required to comply with parts 1 and 2 of this subparagraph, the owner or operator must document that compliance. This documentation may be based on references to published scientific or engineering literature, data from trial tests (e.g., bench scale or pilot scale tests), waste analyses (as specified in subparagraph (2)(d) of this Rule), or the results of the treatment of similar wastes by similar treatment processes and under similar operating conditions.

(i) Location Standards [40 CFR 264.18]

(Note: Commercial Facilities must also comply with Rule 1200-1-14.)

1. Seismic Considerations - (Reserved – See Rule 1200-1-14-.03(2))

2. Floodplain Considerations

   (i) No new facility shall be located in the 100-year floodplain unless it is demonstrated, to the satisfaction of the Commissioner, that location in the floodplain will not significantly aggravate upstream or downstream flooding.

   (ii) A facility located in a 100-year floodplain must be designed, constructed, operated, and maintained to prevent washout or any hazardous waste by a 100-year flood, unless the owner or operator can demonstrate to the Commissioner's satisfaction that:

      (I) Procedures are in effect which will cause the waste to be removed safely, before flood waters can reach the facility, to a location where the wastes will not be vulnerable to flood waters; or

(II) For existing surface impoundments, waste piles, land treatment units, landfills, and miscellaneous units, no adverse effects on human health or the environment will result if washout occurs, considering:

I. The volume and physical and chemical characteristics of the waste in the facility;

II. The concentration of hazardous constituents that would potentially affect surface waters as a result of washout;

III. The impact of such concentrations on the current or potential uses of and water quality standards established for the affected surface waters; and

IV. The impact of hazardous constituents on the sediments of affected surface waters or the soils of the 100-year floodplain that could result from washout.

(Comment: Where removal procedures are demonstrated, the location where wastes are moved must be a facility which, if in Tennessee, must have a permit or interim status under Rule 1200-1-11-.07 or, if in another state, must be authorized by that State or EPA to manage that hazardous waste.)

(iii) As used in this part:

(I) "100-year floodplain" means any land area which is subject to a one percent or greater chance of flooding in any given year from any source.

(II) "Washout" means the movement of hazardous waste from the active portion of the facility as a result of flooding.

(III) "100-year flood" means a flood that has a one percent chance of being equalled or exceeded in any given year.

3. Salt Dome Formations, Salt Bed Formations, Underground Mines and Caves

The placement of any noncontainerized or bulk liquid hazardous waste in any salt dome formation, salt bed formation, underground mine or cave is prohibited.

(j) Construction Quality Assurance Program [40 CFR 264.19]

1. CQA Program

(i) A construction quality assurance (CQA) program is required for all surface impoundment, waste pile, and landfill units that are required to comply with parts (11)(b)3 and 4, (12)(b)3 and 4, and (14)(b)3 and 4 of this Rule. The program must ensure that the constructed unit meets or exceeds all design criteria and specifications in the permit. The program must be developed and implemented under the direction of a CQA officer who is a registered professional engineer.

(ii) The CQA program must address the following physical components, where applicable:

(I) Foundations;

(II) Dikes;

(III) Low-permeability soil liners;

(IV) Geomembranes (flexible membrane liners);

(V) Leachate collection and removal systems and leak detection systems; and

(VI) Final cover systems.

2. Written CQA Plan

The owner or operator of units subject to the CQA program under part 1 of this subparagraph must develop and implement a written CQA plan. The plan must identify steps that will be used to monitor and document the quality of materials and the condition and manner of their installation. The CQA plan must include:

(i) Identification of applicable units, and a description of how they will be constructed.

(ii) Identification of key personnel in the development and implementation of the CQA plan, and CQA officer qualifications.

(iii) A description of inspection and sampling activities for all unit components identified in subpart 1(ii) of this subparagraph, including observations and tests that will be used before, during, and after construction to ensure that the construction materials and the installed unit components meet the design specifications. The description must cover: Sampling size and locations; frequency of testing; data evaluation procedures; acceptance and rejection criteria for construction materials; plans for implementing corrective measures; and data or other information to be recorded and retained in the operating record under subparagraph (5)(d) of this Rule.

3. Contents of Program

(i) The CQA program must include observations, inspections, tests, and measurements sufficient to ensure:

(I) Structural stability and integrity of all components of the unit identified in subpart 1(ii) of this subparagraph;

(II) Proper construction of all components of the liners, leachate collection and removal system, leak detection system, and final cover system, according to permit specifications and good engineering practices, and proper installation of all components (e.g., pipes) according to design specifications;

(III) Conformity of all materials used with design and other material specifications under subparagraphs (11)(b), (12)(b), and (14)(b) of this Rule.

(ii) The CQA program shall include test fills for compacted soil liners, using the same compaction methods as in the full scale unit, to ensure that the liners are constructed to meet the hydraulic conductivity requirements of subitems (11)(b)3(i)(I)II, (12)(b)3(i)(I)II, and (14)(b)3(i)(I)II of this Rule in the field. Compliance with the hydraulic conductivity requirements must be verified by using in-situ testing on the constructed test fill. The Commissioner may accept an alternative demonstration, in lieu of a test fill, where data are sufficient to show that a constructed soil liner will meet the hydraulic conductivity requirements of subitems (11)(b)3(i)(I)II, (12)(b)3(i)(I)II, and (14)(b)3(i)(I)II of this Rule in the field.

4. Certification

Waste shall not be received in a unit subject to subparagraph (2)(j) of this Rule until the owner or operator has submitted to the Commissioner by certified mail or hand delivery a certification signed by the CQA officer that the approved CQA plan has been successfully carried out and that the unit meets the requirements of parts (11)(b)3 or 4, (12)(b)3 or 4, or (14)(b)3 or 4 of this Rule; and the procedure in Rule 1200-1-11-.07(8)(a)12(ii)II has been completed. Documentation supporting the CQA officer's certification must be furnished to the Commissioner upon request.

(k) Co-management of Other Materials

The owner or operator may not treat, store, or dispose of other wastes or other materials along with hazardous wastes in hazardous waste management units subject to the requirements of this Rule unless:

1. The other waste or other material is labeled, marked, or otherwise clearly identifiable as to what it is;

2. The owner or operator is able to demonstrate that the other waste or other material is not a hazardous waste; and

3. The other waste or other material is managed in a manner that does not adversely impact compliance with the standards of this Rule.

(3) Preparedness and Prevention [40 CFR 264 Subpart C]

(a) Applicability [40 CFR 264.30]

The regulations in this paragraph apply to owners and operators of all hazardous waste facilities, except as otherwise provided in subparagraphs (1)(b) and (1)(d) of this Rule.

(b) Design and Operation of Facility [40 CFR 264.31]

Facilities must be designed, constructed, maintained, and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

(c) Required Equipment [40 CFR 264.32]

All facilities must be equipped with the following, unless it can be demonstrated to the Commissioner that none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified below:

1. An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;

2. A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams;

3. Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and

4. Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

(Comment: Rule 1200-1-11-.07 requires that an owner or operator who wishes to make the demonstration referred to above must do so with part B of the permit application.)

(d) Testing and Maintenance of Equipment [40 CFR 264.33]

All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, must be tested and maintained as necessary to assure its proper operation in time of emergency.

(e) Access to Communications or Alarm System [40 CFR 264.34]

1. Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless the Commissioner has ruled that such a device is not required under subparagraph (c) of this paragraph.

2. If there is ever just one employee on the premises while the facility is operating, he must have immediate access to a device, such as a telephone (immediately available at the scene of operation) or a hand-held two-way radio, capable of summoning external emergency assistance, unless the Commissioner has ruled that such a device is not required under subparagraph (c) of this paragraph.

(f) Required Aisle Space [40 CFR 264.35]

The owner or operator must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless it can be demonstrated to the Commissioner that aisle space is not needed for any of these purposes.

(Comment: Rule 1200-1-11-.07 requires that an owner or operator who wishes to make the demonstration referred to above must do so with part B of the permit application.)

(g) (RESERVED) [40 CFR 264.36]

(h) Arrangements with Local Authorities [40 CFR 264.37]

1. The owner or operator must attempt to make the following arrangements, as appropriate for the type of waste handled at his facility and the potential need for the services of these organizations:

   (i) Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and possible evacuation routes;

   (ii) Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority;

   (iii) Agreements with State emergency response teams, emergency response contractors, and equipment suppliers; and

   (iv) Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

2. Where State or local authorities decline to enter into such arrangements, the owner or operator must document the refusal in the operating record.

(4) Contingency Plan and Emergency Procedures [40 CFR 264 Subpart D]

(a) Applicability [40 CFR 264.50]

The regulations in this paragraph apply to owners and operators of all hazardous waste facilities, except as otherwise provided in subparagraph (1)(b) and (1)(d) of this Rule.

(b) Purpose and Implementation of Contingency Plan [40 CFR 264.51]

1. Each owner or operator must have a contingency plan for his facility. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.

2. The provisions of the plan must be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

(c) Content of Contingency Plan [40 CFR 264.52]

1. The contingency plan must describe the actions facility personnel must take to comply with subparagraphs (b) through (g) of this paragraph in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.

2. If the owner or operator has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with part 112 of this chapter, or part 1510 of Chapter V, or some other emergency or contingency plan, he need only amend that

plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this Rule.

3. The plan must describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services, pursuant to subparagraph (3)(h) of this Rule.

4. The plan must list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator (see subparagraph (f) of this paragraph), and this list must be kept up to date. Where more than one person is listed, one must be named as primary emergency coordinator and others must be listed in the order in which they will assume responsibility as alternates. For new facilities, this information must be supplied to the Commissioner at the time of certification, rather than at the time of permit application.

5. The plan must include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list, and a brief outline of its capabilities.

6. The plan must include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases of hazardous waste or fires).

(d) Copies of Contingency Plan [40 CFR 264.53]

A copy of the contingency plan and all revisions to the plan must be:

1. Maintained at the facility; and

2. Submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services.

(Comment: The contingency plan must be submitted to the Commissioner with part B of the permit application under Rule 1200-1-11-.07 and, after modification or approval, will become a condition of any permit issued.)

(e) Amendment of Contingency Plan [40 CFR 264.54]

The contingency plan must be reviewed, and immediately amended, if necessary, whenever:

1. The facility permit is revised;

2. The plan fails in an emergency;

3. The facility changes -- in its design, construction, operation, maintenance, or other circumstances -- in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;

4. The list of emergency coordinators changes; or

5. The list of emergency equipment changes.

(f) Emergency Coordinator [40 CFR 264.55]

At all times, there must be at least one employee either on the facility premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures. This emergency coordinator must be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person must have the authority to commit the resources needed to carry out the contingency plan.

(Comment: The emergency coordinator's responsibilities are more fully spelled out in subparagraph (g) of this paragraph. Applicable responsibilities for the emergency coordinator vary, depending on factors such as type and variety of waste(s) handled by the facility, and type and complexity of the facility.)

(g) Emergency Procedures [40 CFR 264.56]

1. Whenever there is an imminent or actual emergency situation, the emergency coordinator (or his designee when the emergency coordinator is on call) must immediately:

   (i) Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and

   (ii) Notify appropriate State or local agencies with designated response roles if their help is needed.

2. Whenever there is a release, fire, or explosion, the emergency coordinator must immediately identify the character, exact source, amount, and areal extent of any released materials. He may do this by observation or review of facility records or manifests, and, if necessary, by chemical analysis.

3. Concurrently, the emergency coordinator must assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-off from water or chemical agents used to control fire and heat-induced explosions).

4. If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health, or the environment, outside the facility, he must report his findings as follows:

   (i) If his assessment indicates that evacuation of local areas may be advisable, he must immediately notify appropriate local authorities. He must be available to help appropriate officials decide whether local areas should be evacuated; and

   (ii) He must immediately notify the Tennessee Emergency Management Agency (using their 24-hour toll-free number 800/262-3300) and/or the National Response Center (using their 24-hour toll free number 800/424-8802). The report must include:

      (I) Name and telephone number of reporter;

      (II) Name and address of facility;

(III) Time and type of incident (e.g., release, fire);

(IV) Name and quantity of material(s) involved, to the extent known;

(V) The extent of injuries, if any; and

(VI) The possible hazards to human health, or the environment, outside the facility.

5. During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing release waste, and removing or isolating containers.

6. If the facility stops operations in response to a fire, explosion, or release, the emergency coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

7. Immediately after an emergency, the emergency coordinator must provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.

(Comment: Unless the owner or operator can demonstrate, in accordance with Rule 1200-1-11-.02(c)3 or 4, that the recovered material is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of Rule 1200-1-11-.03, .04 and .06.)

8. The emergency coordinator must ensure that, in the affected area(s) of the facility:

(i) No waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed; and

(ii) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

9. The owner or operator must notify the Commissioner, and appropriate State and local authorities, that the facility is in compliance with part 8 of this subparagraph before operations are resumed in the affected area(s) of the facility.

10. The owner or operator must note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, he must submit a written report on the incident to the Commissioner. The report must include:

(i) Name, address, and telephone number of the owner or operator;

(ii) Name, address, and telephone number of the facility;

(iii) Date, time, and type of incident (e.g., fire, explosion);

(iv) Name and quantity of material(s) involved;

(v) The extent of injuries, if any;

(vi) An assessment of actual or potential hazards to human health or the environment, where this is applicable; and

(vii) Estimated quantity and disposition of recovered material that resulted from the incident.

(5) Manifest System, Recordkeeping, and Reporting [40 CFR 264 Subpart E]

(a) Applicability [40 CFR 264.70]

The regulations in this paragraph apply to owners and operators of both on-site and off-site facilities, except as subparagraphs (1)(b) and (1)(d) of this Rule provide otherwise. Subparagraphs (b),(c), and (g) of this paragraph do not apply to owners and operators of on-site facilities that do not receive any hazardous waste from off-site sources, and to owners and operators of off-site facilities with respect to waste military munitions exempted from manifest requirements under Rule 1200-1-11-.09(13)(d)1. Part (d)2 of this paragraph only applies to permittees who treat, store, or dispose of hazardous wastes on-site where such wastes were generated.

(b) Use of Manifest System [40 CFR 264.71]

1. If a facility receives hazardous waste accompanied by a manifest, the owner or operator, or his agent, must:

(i) Sign and date each copy of the manifest to certify that the hazardous waste covered by the manifest was received;

(ii) Note any significant discrepancies in the manifest (as defined in part (c)1 of this paragraph) on each copy of the manifest;

(Comment: The Agency does not intend that the owner or operator of a facility whose procedures under part (2)(d)3 of this Rule include waste analysis must perform that analysis before signing the manifest and giving it to the transporter. Part (c)2 of this paragraph, however, requires reporting an unreconciled discrepancy discovered during later analysis.)

(iii) Immediately give the transporter at least one copy of the signed manifest;

(iv) Within 30 days after the delivery, send a copy of the manifest to the generator; and

(v) Retain at the facility a copy of each manifest for at least three years from the date of delivery.

2. If a facility receives, from a rail or water (bulk shipment) transporter, hazardous waste which is accompanied by a shipping paper containing all the information required on the manifest (excluding the Installation Identification Numbers, generator's certification, and signatures), the owner or operator, or his agent, must:

(i) Sign and date each copy of the manifest or shipping paper (if the manifest has not been received) to certify that the hazardous waste covered by the manifest or shipping paper was received;

(ii) Note any significant discrepancies (as defined in part (c)1 of this paragraph) in the manifest or shipping paper (if the manifest has not been received) on each copy of the manifest or shipping paper.

(Comment: The Agency does not intend that the owner or operator of a facility whose procedures under part (2)(d)3 of this Rule include waste analysis must perform that analysis before signing the shipping paper and giving it to the transporter. Part (c)2 of this paragraph, however, requires reporting an unreconciled discrepancy discovered during later analysis.)

(iii) Immediately give the rail or water (bulk shipment) transporter at least one copy of the manifest or shipping paper (if the manifest has not been received);

(iv) Within 30 days after the delivery, send a copy of the signed and dated manifest to the generator; however, if the manifest has not been received within 30 days after delivery, the owner or operator, or his agent, must send a copy of the shipping paper signed and dated to the generator; and

(Comment: Rule 1200-1-11-.03(3)(d)3 requires the generator to send three copies of the manifest to the facility when hazardous waste is sent by rail or water (bulk shipment).)

(v) Retain at the facility a copy of the manifest and shipping paper (if signed in lieu of the manifest at the time of delivery) for at least three years from the date of delivery.

3. Whenever a shipment of hazardous waste is initiated from a facility, the owner or operator of that facility must comply with the requirements of Rule 1200-1-1-.03.

(Comment: The provisions of Rule 1200-1-11-.03(4)(e) are applicable to the on-site accumulation of hazardous wastes by generators. Therefore, the provisions of Rule 1200-1-11-.03(4)(e) only apply to owners or operators who are shipping hazardous waste which they generated at that facility.)

4. (Reserved) [40 CFR 264.71(d)]

(c) Manifest Discrepancies [40 CFR 264.72]

1. Manifest discrepancies are differences between the quantity or type of hazardous waste designated on the manifest or shipping paper, and the quantity or type of hazardous waste a facility actually receives. Significant discrepancies in quantity are:

(i) For bulk waste, variations greater than 10 percent in weight, and

(ii) For batch waste, any variation in piece count, such as a discrepancy of one drum in a truckload. Significant discrepancies in type are obvious differences which can be discovered by inspection or waste analysis, such as waste solvent substituted for waste acid, or toxic constituents not reported on the manifest or shipping paper.

2. Upon discovering a significant discrepancy, the owner or operator must attempt to reconcile the discrepancy with the waste generator or transporter (e.g., with telephone conversations). If the discrepancy is not resolved within 15 days after receiving the waste, the owner or operator must immediately submit to the Commissioner a letter describing the discrepancy and attempts to reconcile it, and a copy of the manifest or shipping paper at issue.

3. It shall be the responsibility of the owner or operator to handle as a hazardous waste any material generated and shipped to him by another person which is identified on the manifest or shipping paper as a hazardous waste. The owner or operator may not make the determination that such a waste is nonhazardous, regardless of the results of his analysis, since that is the responsibility of the generator. If a manifest discrepancy occurs such that the owner or operator believes that the material shipped is not a hazardous waste, then the owner or operator may not manage that material other than as a hazardous waste unless and until he obtains written certification from the generator that the material is not a hazardous waste. Such a written certification must be kept with the manifest as part of the operating record required under subparagraph (d) of this paragraph.

(d) Operating Record [40 CFR 264.73]

1. The owner or operator must keep a written operating record at his facility.

2. The following information must be recorded, as it becomes available, and maintained in the operating record until closure of the facility:

(i) A description and the quantity of each hazardous waste received, and the method(s) and date(s) of its treatment, storage, or disposal at the facility as required by Appendix I in paragraph (57) of this Rule;

(ii) The location of each hazardous waste within the facility and the quantity at each location. For disposal facilities, the location and quantity of each hazardous waste must be recorded on a map or diagram of each cell or disposal area. For all facilities, this information must include cross-references to specific manifest document numbers, if the waste was accompanied by a manifest;

(Comment: See subparagraph (7)(j) of this Rule for related requirements.)

(iii) Records and results of waste analyses and waste determinations performed as specified in subparagraphs (2)(d), (2)(h), (14)(o), (15)(b), (30)(e), (31)(n), (32)(d) of this Rule, and part (1)(d)1 and subparagraph (1)(g) of Rule 1200-1-11-.10;

(iv) Summary reports and details of all incidents that require implementing the contingency plan as specified in part (4)(g)10 of this Rule;

(v) Records and results of inspections as required by part (2)(f)4 of this Rule (except these data need be kept only three years);

(vi) Monitoring, testing or analytical data, and corrective action where required by paragraph (6), subparagraphs (2)(j), (10)(b), (10)(d), (10)(f), (11)(c), (11)(d), (11)(g), (12)(c)-(12)(e), (13)(g), (13)(i), (13)(k), (14)(c)-(14)(e), (14)(j), (15)(h), (27)(c), parts (30)(e)3-(30)(e)6, subparagraph (30)(f), parts (31)(n)4-(31)(n)9, subparagraph (31)(o), and (32)(c) through (32)(k) of this Rule;

(vii) For off-site facilities, notices to generators as specified in part (2)(c)2 of this Rule;

(viii) All closure cost estimates under subparagraph (8)(c) of this Rule, and, for disposal facilities, all post-closure cost estimates under subparagraph (8)((e) of this Rule;

(ix) A certification by the permittee no less often than annually, that the permittee has a program in place to reduce the volume and toxicity of hazardous waste that he generates to the degree determined by the permittee to be economically practicable; and the proposed method of treatment, storage or disposal is that practicable method currently available to the permittee which minimizes the present and future threat to human health and the environment;

(x) Records of the quantities (and date of placement) for each shipment of hazardous waste placed in land disposal units under an extension to the effective date of any land disposal restriction granted pursuant to Rule 1200-1-11-.10(1)(e), a petition pursuant to Rule 1200-1-11-.10-(1)(f), or a certification under Rule 1200-1-11-.10-(1)(h), and the applicable notice required by a generator under Rule 1200-1-11-.10(1)(g)1;

(xi) For an off-site treatment facility, a copy of the notice, and the certification and demonstration, if applicable, required by the generator or the owner or operator under Rule 1200-1-11-.10(1)(g) or (h);

(xii) For an on-site treatment facility, the information contained in the notice (except the manifest number), and the certification and demonstration if applicable, required by the generator or the owner or operator under Rule 1200-1-11-.10(1)(g) or (h);

(xiii) For an off-site land disposal facility, a copy of the notice, and the certification and demonstration if applicable, required by the generator or the owner or operator of a treatment facility under Rule 1200-1-11-.10(1)(g) or (h), whichever is applicable;

(xiv) For an on-site land disposal facility, the information contained in the notice required by the generator or owner or operator of a treatment facility under Rule 1200-1-11-.10(1)(g), except for the manifest number, and the certification and demonstration if applicable, required under Rule 1200-1-11-.10(1)(h), whichever is applicable;

(xv) For an off-site storage facility, a copy of the notice, and the certification and demonstration if applicable, required by the generator or the owner or operator under Rule 1200-1-11-.10(1)(g) or (h); and

(xvi) For an on-site storage facility, the information contained in the notice (except the manifest number), and the certification and demonstration if applicable, required by the generator or the owner or operator under Rule 1200-1-11-.10(1)(g) or (h).

(xvii) Any records required under subpart (1)(b)2(xiii) of this Rule.

(e) Availability, Retention, and Disposition of Records [40 CFR 264.74]

1. All records, including plans, required under this Rule must be furnished upon request, and made available at all reasonable times for inspection, by any officer, employee, or representative of the Department who is duly designated by the Commissioner.

2. The retention period for all records required under this Rule is extended automatically during the course of any unresolved enforcement action regarding the facility or as requested by the Commissioner or Board.

3. A copy of records of waste disposal locations and quantities under subpart (d)2(ii) of this paragraph must be submitted to the Commissioner and local land authority upon closure of the facility.

(f) Annual Report

The owner or operator must prepare and submit a single copy of an annual report to the Commissioner by March 1 of each year. Such reports must be submitted on forms provided by the Department and in accordance with the instructions accompanying the form. The annual report must cover facility activities during the previous calendar year and must include the following information:

1. The installation identification number, name, and address of the facility;

2. The calendar year covered by the report;

3. For off-site facilities, the installation identification number of each hazardous waste generator from which the facility received a hazardous waste during the year; for imported shipments, the report must give the name and address of the foreign generator;

4. A description and the quantity of each hazardous waste the facility received during the year. For off-site facilities, this information must be listed by installation identification number of each generator;

5. The method of treatment, storage, or disposal for each hazardous waste;

6. The most recent closure cost estimate under subparagraph (8)(c) of this Rule, and, for disposal facilities, the most recent post-closure cost estimate under subparagraph (8)(e) of this Rule;

7. The certification signed by the owner or operator of the facility or his authorized representative;

8. Reserved

9. Reserved

(g) Unmanifested Waste Report [40 CFR 264.76]

If a facility accepts for treatment, storage, or disposal any hazardous waste from an off-site source without an accompanying manifest, or without an accompanying shipping paper as described in Rule 1200-1-11-.04(3)(a)5(ii), and if the waste is not excluded from the manifest requirement by Rule 1200-1-11-.02(1)(e), then the owner or operator must prepare and submit a single copy of a report to the Commissioner within fifteen days after receiving the waste. The unmanifested waste report must be submitted on EPA form 8700-13B. Such report must be designated `Unmanifested Waste Report' and include the following information:

1. The Installation Identification Number, name, and address of the facility;

2. The date the facility received the waste;

3. The Installation Identification Number, name, and address of the generator and the transporter, if available;

4. A description and the quantity of each unmanifested hazardous waste and facility received;

5. The method of treatment, storage, or disposal for each hazardous waste;

6. The certification signed by the owner or operator of the facility or his authorized representative; and

7. A brief explanation of why the waste was unmanifested, if known.

(Comment: Small quantities of hazardous waste are excluded from regulation under this Rule and do not require a manifest. Where a facility receives unmanifested hazardous wastes, the Department suggests that the owner or operator obtain from each generator a certification that the waste qualifies for exclusion. Otherwise, the Department suggests that the owner or operator file an unmanifested waste report for the hazardous waste movement.)

(h) Additional Reports [40 CFR 264.77]

In addition to submitting the annual report and unmanifested waste reports described in subparagraphs (f) and (g) of this paragraph, the owner or operator must also report to the Commissioner:

1. Releases, fires, and explosions as specified in part (4)(g)10 of this Rule;

2. Facility closures specified in subparagraph (7)(f) of this Rule; and

3. As otherwise required by paragraphs (6), (11) through (14), (30), (31) and (32) of this Rule.

(6) Releases From Solid Waste Management Units [40 CFR 264 Subpart F]

(a) Applicability [40 CFR 264.90]

1. (i) Except as provided in part 2 of this subparagraph, the regulations in this subpart apply to owners or operators of facilities that treat, store or dispose of hazardous waste. The owner or operator must satisfy the requirements identified in subpart (ii) of this part for all wastes (or constituents thereof) contained in solid waste management units at the facility, regardless of the time at which waste was placed in such units.

(ii) All solid waste management units must comply with the requirements in subparagraph (l) of this paragraph. A surface impoundment, waste pile, and land treatment unit or landfill that receives hazardous waste after July 26, 1982 (hereinafter referred to as a "regulated unit") must comply with the requirements of subparagraphs (b) through (k) of this paragraph in lieu of subparagraph (l) of this paragraph for purposes of detecting, characterizing and responding to releases to the uppermost aquifer. The financial responsibility requirements of subparagraph (l) of this paragraph apply to regulated units.

2. The owner or operator's regulated unit or units are not subject to regulation for releases into the uppermost aquifer under this subpart if:

(i) The owner or operator is exempted under subparagraph (1)(b) of this Rule; or

(ii) He obtains a waiver under subparagraph (1)(d) of this Rule;

(iii) He operates a unit which the Commissioner finds:

(I) Is an engineered structure,

(II) Does not receive or contain liquid waste or waste containing free liquids,

(III) Is designed and operated to exclude liquid, precipitation, and other run-on and run-off,

(IV) Has both inner and outer layers of containment enclosing the waste,

(V) Has a leak detection system built into each containment layer,

(VI) The owner or operator will provide continuing operation and maintenance of these leak detection systems during the active life of the unit and the closure and post-closure care periods, and

(VII) To a reasonable degree of certainty, will not allow hazardous constituents to migrate beyond the outer containment layer prior to the end of the post-closure care period.

(iv) The Commissioner finds, pursuant to part (13)(k)4 of this Rule, that the treatment zone of a land treatment unit that qualifies as a regulated unit does not contain levels of hazardous constituents that are above background levels of those constituents by an amount that is statistically significant, and if an unsaturated zone monitoring program meeting the requirements of subparagraph (13)(i) of this Rule has not shown a statistically significant increase in hazardous constituents below the treatment zone during the operating life of the unit. An exemption under this subpart can only relieve an owner or operator of responsibility to meet the requirements of this subpart during the post-closure care period; or

(v) The Commissioner finds that there is no potential for migration of liquid from a regulated unit to the uppermost aquifer during the active life of the regulated unit (including the closure period) and the port-closure care period specified under subparagraph (7)(h) of this Rule. This demonstration must be certified by a qualified geologist or geotechnical engineer. In order to provide an adequate margin of safety in the prediction of potential migration of liquid, the owner or operator must base any predictions made under this paragraph on assumptions that maximize the rate of liquid migration.

(vi) He designs and operates a pile in compliance with part (12)(a)3 of this Rule.

3. The regulations under this paragraph apply during the active life of the regulated unit (including the closure period). After closure of the regulated unit, the regulations in this paragraph:

(i) Do not apply if all waste, waste residues, contaminated containment system components, and contaminated subsoils are removed or decontaminated at closure;

(ii) Apply during the post-closure care period under subparagraph (7)(h) of this Rule if the owner or operator is conducting a detection monitoring program under subparagraph (i) of this paragraph; or

(iii) Apply during the compliance period under subparagraph (g) of this paragraph if the owner or operator is conducting a compliance monitoring program under subparagraph (j) of this paragraph or a corrective action program under subparagraph (k) of this paragraph.

4. Regulations in this paragraph may apply to miscellaneous units when necessary to comply with subparagraphs (27)(b)-(27)(d) of this Rule.

5. The regulations of this paragraph apply to all owners and operators subject to the requirements of Rule 1200-1-11-.07(1)(b)9, when the Agency issues either a post-closure permit or an enforceable document (as defined in Rule 1200-1-11-.07(1)(b)9) at the facility. When the Agency issues an enforceable document, references in this paragraph to "in the permit" mean "in the enforceable document."

6. The Commissioner may replace all or part of the requirements of subparagraphs (6)(b) through (6)(k) of this Rule applying to a regulated unit with alternative requirements for groundwater monitoring and corrective action for releases to groundwater set out in the permit (or in an enforceable document) (as defined in Rule 1200-1-11-.07(1)(b)9) where the Commissioner determines that:

(i) The regulated unit is situated among solid waste management units (or areas of concern), a release has occurred, and both the regulated unit and one or more solid waste management unit(s) (or areas of concern) are likely to have contributed to the release; and

(ii) It is not necessary to apply the groundwater monitoring and corrective action requirements of subparagraphs (6)(b) through (6)(k) of this Rule because alternative requirements will protect human health and the environment.

(b) Required Programs [40 CFR 264.91]

1. Owners and operators subject to this subpart must conduct a monitoring and response program as follows:

(i) Whenever hazardous constituents under subparagraph (d) of this paragraph from a regulated unit are detected at a compliance point under subparagraph (f) of this paragraph, the owner or operator must institute a compliance monitoring program under subparagraph (j) of this paragraph. Detected is defined as statistically significant evidence of contamination as described in part (i)6 of this paragraph;

(ii) Whenever the ground-water protection standard under subparagraph (c) of this paragraph is exceeded, the owner or operator must institute a corrective action program under subparagraph (k) of this paragraph. Exceeded is defined as statistically significant evidence of increased contamination as described in part (j)4 of this paragraph;

(iii) Whenever hazardous constituents under subparagraph (d) of this paragraph from a regulated unit exceed concentration limits under subparagraph (e) of this paragraph in ground water between the compliance point under subparagraph (f)

of this paragraph and the downgradient facility property boundary, the owner or operator must institute a corrective action program under subparagraph (k) of this paragraph; or

(iv) In all other cases, the owner or operator must institute a detection monitoring program under subparagraph (i) of this paragraph.

2. The Commissioner will specify in the facility permit the specific elements of the monitoring and response program. The Commissioner may include one or more of the programs identified in part 1 of this subparagraph in the facility permit as may be necessary to protect human health and the environment and will specify the circumstances under which each of the programs will be required. In deciding whether to require the owner or operator to be prepared to institute a particular program, the Commissioner will consider the potential adverse effects on human health and the environment that might occur before final administrative action on a permit modification application to incorporate such a program could be taken.

(c) Ground-water Protection Standard [40 CFR 264.92]

The owner or operator must comply with conditions specified in the facility permit that are designed to ensure that hazardous constituents under subparagraph (d) of this paragraph detected in the ground water from a regulated unit do not exceed the concentration limits under subparagraph (e) of this paragraph in the uppermost aquifer underlying the waste management area beyond the point of compliance under subparagraph (f) of this paragraph during the compliance period under subparagraph (g) of this paragraph. The Commissioner will establish this ground-water protection standard in the facility permit when hazardous constituents have been detected in the ground water.

(d) Hazardous Constituents [40 CFR 264.93]

1. The Commissioner will specify in the facility permit the hazardous constituents to which the ground-water protection standard of subparagraph (c) of this paragraph applies. Hazardous constituents are constituents identified in Appendix VIII of Rule 1200-1-11-.02(5) that have been detected in ground water in the uppermost aquifer underlying a regulated unit and that are reasonably expected to be in or derived from waste contained in a regulated unit, unless the Commissioner has excluded them under part 2 of this subparagraph.

2. The Commissioner will exclude an Appendix VIII constituent from the list of hazardous constituents specified in the facility permit if he finds that the constituent is not capable of posing a substantial present or potential hazard to human health or the environment. In deciding whether to grant an exemption, the Commissioner will consider the following:

(i) Potential adverse effects on ground-water quality, considering:

(I) The physical and chemical characteristics of the waste in the regulated unit, including its potential for migration;

(II) The hydrogeological characteristics of the facility and surrounding land;

(III) The quantity of ground water and the direction of ground-water flow;

(IV) The proximity and withdrawal rates of ground-water users;

(V) The current and future uses of ground water in the area;

(VI) The existing quality of ground water, including other sources of contamination and their cumulative impact on the ground-water quality;

(VII) The potential for health risks caused by human exposure to waste constituents;

(VIII) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents;

(IX) The persistence and permanence of the potential adverse effects; and

(ii) Potential adverse effects on hydraulically-connected surface water quality, considering:

(I) The volume and physical and chemical characteristics of the waste in the regulated unit;

(II) The hydrogeological characteristics of the facility and surrounding land;

(III) The quantity and quality of ground water, and the direction of ground-water flow;

(IV) The patterns of rainfall in the region;

(V) The proximity of the regulated unit to surface waters;

(VI) The current and future uses of surface waters in the area and any water quality standards established for those surface waters;

(VII) The existing quality of surface water, including other sources of contamination and the cumulative impact on surface-water quality;

(VIII) The potential for health risks caused by human exposure to waste constituents;

(IX) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents; and

(X) The persistence and permanence of the potential adverse effects.

3. In making any determination under part 2 of this subparagraph about the use of ground water in the area around the facility, the Commissioner will consider any identification of underground sources of drinking water and exempted aquifers made under 40 CFR 144.8 or Tennessee Rule Chapter 1200-4-6.

(e) Concentration Limits [40 CFR 264.94]

1. The Commissioner will specify in the facility permit concentration limits in the ground water for hazardous constituents established under subparagraph (d) of this paragraph. The concentration of a hazardous constituent:

   (i) Must not exceed the background level of that constituent in the ground water at the time that limit is specified in the permit; or

   (ii) For any of the constituents listed in Table 1, must not exceed the respective value given in that table if the background level of the constituent is below the value given in Table 1; or

Table 1 -- Maximum Concentration of Constituents for Ground-water Protection

Constituent	Maximum Concentration[1]
Arsenic	0.05
Barium	1.0
Cadmium	0.01
Chromium	0.05
Lead	0.05
Mercury	0.002
Selenium	0.01
Silver	0.05
Endrin (1,2,3,4,10,10-hexachloro-1,7-epoxy-1,4,4a,5,6,7,8,9a-octahydro-1, 4-endo, endo-5,8-dimethano naphthalene)	0.0002
Lindane (1,2,3,4,5,6-hexachlorocyclohexane, gamma isomer)	0.004
Methoxychlor (1,1,1-Trichloro-2,2-bis (p-methoxyphenylethane)	0.1
Toxaphene ($C_{10}H_{10}Cl_6$, Technical chlorinated camphene, 67-69 percent chlorine)	0.005
2,4-D (2,4-Dichlorophenoxyacetic acid)	0.1
2,4,5-TP Silvex (2,4,5-Trichlorophenoxypropionic acid)	0.01

FOOTNOTE: [1]Milligrams per liter.

   (iii) Must not exceed an alternate limit established by the Commissioner under part 2 of this subparagraph.

2. The Commissioner will establish an alternate concentration limit for a hazardous constituent if he finds that the constituent will not pose a substantial present or potential hazard to human health or the environment as long as the alternate concentration limit is not exceeded. In establishing alternate concentration limits, the Commissioner will consider the following factors:

   (i) Potential adverse effects on ground-water quality, considering:

      (I) The physical and chemical characteristics of the waste in the regulated unit, including its potential for migration;

      (II) The hydrogeological characteristics of the facility and surrounding land;

      (III) The quantity of ground water and the direction of ground-water flow;

      (IV) The proximity and withdrawal rates of ground-water users;

      (V) The current and future uses of ground water in the area;

      (VI) The existing quality of ground water, including other sources of contamination and their cumulative impact on the ground-water quality;

      (VII) The potential for health risks caused by human exposure to waste constituents;

      (VIII) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents;

      (IX) The persistence and permanence of the potential adverse effects; and

   (ii) Potential adverse effects on hydraulically-connected surface-water quality, considering:

      (I) The volume and physical and chemical characteristics of the waste in the regulated unit;

      (II) The hydrogeological characteristics of the facility and surrounding land;

      (III) The quantity and quality of ground water, and the direction of ground-water flow;

      (IV) The patterns of rainfall in the region;

      (V) The proximity of the regulated unit to surface waters;

      (VI) The current and future uses of surface waters in the area and any water quality standards established for those surface waters;

      (VII) The existing quality of surface water, including other sources of contamination and the cumulative impact on surface water quality;

(VIII) The potential for health risks caused by human exposure to waste constituents;

(IX) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents; and

(X) The persistence and permanence of the potential adverse effects.

3. In making any determination under part 2 of this subparagraph about the use of ground water in the area around the facility the Commissioner will consider any identification of underground sources of drinking water and exempted aquifers made under 40 CFR 144.8 or Tennessee Rule Chapter 1200-4-6.

(f) Point of Compliance [40 CFR 264.95]

1. The Commissioner will specify in the facility permit the point of compliance at which the ground-water protection standard of subparagraph (c) of this paragraph applies and at which monitoring must be conducted. The point of compliance is a vertical surface located at the hydraulically downgradient limit of the waste management area that extends down into the uppermost aquifer underlying the regulated units.

2. The waste management area is the limit projected in the horizontal plane of the area on which waste will be placed during the active life of a regulated unit.

(i) The waste management area includes horizontal space taken up by any liner, dike, or other barrier designed to contain waste in a regulated unit.

(ii) If the facility contains more than one regulated unit, the waste management area is described by an imaginary line circumscribing the several regulated units.

(g) Compliance Period [40 CFR 264.96]

1. The Commissioner will specify in the facility permit the compliance period during which the ground-water protection standard of subparagraph (c) of this paragraph applies. The compliance period is the number of years equal to the active life of the waste management area (including any waste management activity prior to permitting, and the closure period).

2. The compliance period begins when the owner or operator initiates a compliance monitoring program meeting the requirements of subparagraph (j) of this paragraph.

3. If the owner or operator is engaged in a corrective action program at the end of the compliance period specified in part 1 of this subparagraph, the compliance period is extended until the owner or operator can demonstrate that the ground-water protection standard of subparagraph (c) of this paragraph has not been exceeded for a period of three consecutive years.

(h) General Ground-water Monitoring Requirements [40 CFR 264.97]

The owner or operator must comply with the following requirements for any ground-water monitoring program developed to satisfy subparagraph (i),(j), or (k) of this paragraph:

1. The ground-water monitoring system must consist of a sufficient number of wells, installed at appropriate locations and depths to yield ground-water samples from the uppermost aquifer that:

   (i) Represent the quality of background water that has not been affected by leakage from a regulated unit;

      (I) A determination of background quality may include sampling of wells that are not hydraulically upgradient of the waste management area where:

         I. Hydrogeologic conditions do not allow the owner or operator to determine what wells are hydraulically upgradient; and

         II. Sampling at other wells will provide an indication of background ground-water quality that is representative or more representative than that provided by the upgradient wells; and

   (ii) Represent the quality of ground water passing the point of compliance.

   (iii) Allow for the detection of contamination when hazardous waste or hazardous constituents have migrated from the waste management area to the uppermost aquifer.

2. If a facility contains more than one regulated unit, separate ground-water monitoring systems are not required for each regulated unit provided that provisions for sampling the ground water in the uppermost aquifer will enable detection and measurement at the compliance point of hazardous constituents from the regulated units that have entered the ground water in the uppermost aquifer.

3. All monitoring wells must be cased in a manner that maintains the integrity of the monitoring-well bore hole. This casing must be screened or perforated and packed with gravel or sand, where necessary, to enable collection of ground-water samples. The annular space (i.e., the space between the bore hole and well casing) above the sampling depth must be sealed to prevent contamination of samples and the ground water.

4. The ground-water monitoring program must include consistent sampling and analysis procedures that are designed to ensure monitoring results that provide a reliable indication of ground-water quality below the waste management area. At a minimum the program must include procedures and techniques for:

   (i) Sample collection;

   (ii) Sample preservation and shipment;

   (iii) Analytical procedures; and

   (iv) Chain of custody control.

5. The ground-water monitoring program must include sampling and analytical methods that are appropriate for ground-water sampling and that accurately measure hazardous constituents in ground-water samples.

6. The ground-water monitoring program must include a determination of the ground-water surface elevation each time ground water is sampled.

7. In detection monitoring or where appropriate in compliance monitoring, data on each hazardous constituent specified in the permit will be collected from background wells and wells at the compliance point(s). The number and kinds of samples collected to establish background shall be appropriate for the form of statistical test employed, following generally accepted statistical principles. The sample size shall be as large as necessary to ensure with reasonable confidence that a contaminant release to ground water from a facility will be detected. The owner or operator will determine an appropriate sampling procedure and interval for each hazardous constituent listed in the facility permit which shall be specified in the unit permit upon approval by the Commissioner. This sampling procedure shall be:

   (i) A sequence of at least four samples, taken at an interval that assures, to the greatest extent technically feasible, that an independent sample is obtained, by reference to the uppermost aquifer's effective porosity, hydraulic conductivity, and hydraulic gradient, and the fate and transport characteristics of the potential contaminants, or

   (ii) an alternate sampling procedure proposed by the owner or operator and approved by the Commissioner.

8. The owner or operator will specify one of the following statistical methods to be used in evaluating ground-water monitoring data for each hazardous constituent which, upon approval by the Commissioner, will be specified in the unit permit. The statistical test chosen shall be conducted separately for each hazardous constituent in each well. Where practical quantification limits (pql's) are used in any of the following statistical procedures to comply with subpart (h)9(v) of this paragraph, the pql must be proposed by the owner or operator and approved by the Commissioner. Use of any of the following statistical methods must be protective of human health and the environment and must comply with the performance standards outlined in part (h)9 of this paragraph.

   (i) A parametric analysis of variance (ANOVA) followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's mean and the background mean levels for each constituent.

   (ii) An analysis of variance (ANOVA) based on ranks followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's median and the background median levels for each constituent.

   (iii) A tolerance or prediction interval procedure in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit.

   (iv) A control chart approach that gives control limits for each constituent.

   (v) Another statistical test method submitted by the owner or operator and approved by the Commissioner.

9. Any statistical method chosen under subparagraph (h)8 of this paragraph for specification in the unit permit shall comply with the following performance standards, as appropriate:

(i) The statistical method used to evaluate ground-water monitoring data shall be appropriate for the distribution of chemical parameters or hazardous constituents. If the distribution of the chemical parameters or hazardous constituents is shown by the owner or operator to be inappropriate for a normal theory test, then the data should be transformed or a distribution-free theory test should be used. If the distributions for the constituents differ, more than one statistical method may be needed.

(ii) If an individual well comparison procedure is used to compare an individual compliance well constituent concentration with background constituent concentrations or a ground-water protection standard, the test shall be done at a Type I error level no less than 0.01 for each testing period. If a multiple comparisons procedure is used, the Type I experimentwise error rate for each testing period shall be no less than 0.05; however, the Type I error of no less than 0.01 for individual well comparisons must be maintained. This performance standard does not apply to tolerance intervals, prediction intervals or control charts.

(iii) If a control chart approach is used to evaluate ground-water monitoring data, the specific type of control chart and its associated parameter values shall be proposed by the owner or operator and approved by the Commissioner if he or she finds it to be protective of human health and the environment.

(iv) If a tolerance interval or a prediction interval is used to evaluate groundwater monitoring data, the levels of confidence and, for tolerance intervals, the percentage of the population that the interval must contain, shall be proposed by the owner or operator and approved by the Commissioner if he or she finds these parameters to be protective of human health and the environment. These parameters will be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.

(v) The statistical method shall account for data below the limit of detection with one or more statistical procedures that are protective of human health and the environment. Any practical quantification limit (pql) approved by the Commissioner under part (h)8 of this paragraph that is used in the statistical method shall be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility.

(vi) If necessary, the statistical method shall include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.

10. Ground-water monitoring data collected in accordance with part 7 of this subparagraph including actual levels of constituents must be maintained in the facility operating record. The Commissioner will specify in the permit when the data must be submitted for review.

(i) Detection Monitoring Program [40 CFR 264.98]

An owner or operator required to establish a detection monitoring program under this subpart must, at a minimum, discharge the following responsibilities:

1. The owner or operator must monitor for indicator parameters (e.g., specific conductance, total organic carbon, or total organic halogen), waste constituents, or reaction products that provide a reliable indication of the presence of hazardous constituents in ground water. The Commissioner will specify the parameters or constituents to be monitored in the facility permit, after considering the following factors:

   (i) The types, quantities, and concentrations of constituents in wastes managed at the regulated unit;

   (ii) The mobility, stability, and persistence of waste constituents or their reaction products in the unsaturated zone beneath the waste management area;

   (iii) The detectability of indicator parameters, waste constituents, and reaction products in ground water; and

   (iv) The concentrations or values and coefficients of variation of proposed monitoring parameters or constituents in the ground-water background.

2. The owner or operator must install a ground-water monitoring system at the compliance point as specified under subparagraph (f) of this paragraph. The ground-water monitoring system must comply with subpart (h)1(ii) and parts (h)2 and 3 of this paragraph.

3. The owner or operator must conduct a ground-water monitoring program for each chemical parameter and hazardous constituent specified in the permit pursuant to part 1 of this subparagraph in accordance with part (h)7 of this paragraph. The owner or operator must maintain a record of ground-water analytical data as measured and in a form necessary for the determination of statistical significance under part (h)8 of this paragraph.

4. The Commissioner will specify the frequencies for collecting samples and conducting statistical tests to determine whether there is statistically significant evidence of contamination for any parameter or hazardous constituent specified in the permit under part 1 of this subparagraph in accordance with part (h)7 of this paragraph. A sequence of at least four samples from each well (background and compliance wells) must be collected at least semi-annually during detection monitoring.

5. The owner or operator must determine the ground-water flow rate and direction in the uppermost aquifer at least annually.

6. The owner or operator must determine whether there is statistically significant evidence of contamination for any chemical parameter of hazardous constituent specified in the permit pursuant to part 1 of this subparagraph at a frequency specified under part 4 of this subparagraph.

   (i) In determining whether statistically significant evidence of contamination exists, the owner or operator must use the method(s) specified in the permit under part (h)8 of this paragraph. These method(s) must compare data collected at the compliance point(s) to the background ground-water quality data.

   (ii) The owner or operator must determine whether there is statistically significant evidence of contamination at each monitoring well as the compliance point

within a reasonable period of time after completion of sampling. The Commissioner will specify in the facility permit what period of time is reasonable, after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of ground-water samples.

7. If the owner or operator determines pursuant to part 6 of this subparagraph that there is statistically significant evidence of contamination for chemical parameters or hazardous constituents specified pursuant to part 1 of this subparagraph at any monitoring well at the compliance point, he or she must:

(i) Notify the Division Director of this finding in writing within seven days. The notification must indicate what chemical parameters or hazardous constituents have shown statistically significant evidence of contamination;

(ii) Immediately sample the ground water in all monitoring wells and determine whether constituents in the list of Appendix IX in paragraph (57) of this Rule are present, and if so, in what concentration;

(iii) For any Appendix IX compounds found in the analysis pursuant to subpart (ii) of this part, the owner or operator may resample within one month and repeat the analysis for those compounds detected. If the results of the second analysis confirm the initial results, then these constituents will form the basis for compliance monitoring. If the owner or operator does not resample for the compounds found pursuant to subpart (ii) of this part, the hazardous constituents found during this initial Appendix IX analysis will form the basis for compliance monitoring;

(iv) Within 90 days, submit to the Division Director an application for a permit modification to establish a compliance monitoring program meeting the requirements of subparagraph (j) of this paragraph. The application must include the following information:

(I) An identification of the concentration or any Appendix IX constituent detected in the ground water at each monitoring well at the compliance point;

(II) Any proposed changes to the ground-water monitoring system at the facility necessary to meet the requirements of subparagraph (j) of this paragraph;

(III) Any proposed additions or changes to the monitoring frequency, sampling and analysis procedures or methods, or statistical methods used at the facility necessary to meet the requirements of subparagraph (j) of this paragraph;

(IV) For each hazardous constituent detected at the compliance point, a proposed concentration limit under subpart (e)1(i) or (ii) of this paragraph, or a notice of intent to seek an alternate concentration limit under part (e)2 of this paragraph;

(v) Within 180 days, submit to the Division Director:

(I) All data necessary to justify an alternate concentration limit sought under part (e)2 of this paragraph; and

(II) An engineering feasibility plan for a corrective action program necessary to meet the requirement of subparagraph (k) of this paragraph, unless:

I. All hazardous constituents identified under subpart (ii) of this part are listed in Table 1 of subparagraph (e) of this paragraph and their concentrations do not exceed the respective values given in that Table; or

II. The owner or operator has sought an alternate concentration limit under part (e)2 of this paragraph for every hazardous constituent identified under subpart (ii) of this part;

(vi) If the owner or operator determines, pursuant to part 6 of this subparagraph, that there is a statistically significant difference for chemical parameters or hazardous constituents specified pursuant to part 1 of this subparagraph at any monitoring well at the compliance point, he or she may demonstrate that a source other than a regulated unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis, or statistical evaluation or natural variation in the ground water. The owner or operator may make a demonstration under this part in addition to, or in lieu of, submitting a permit modification application under subpart (iv) of this part; however, the owner or operator is not relieved of the requirement to submit a permit modification application within the time specified in subpart (iv) of this part unless the demonstration made under this part successfully shows that a source other than a regulated unit caused the increase, or that the increase resulted from error in sampling, analysis, or evaluation. In making a demonstration under this part, the owner or operator must:

(I) Notify the Division Director in writing within seven days of determining statistically significant evidence of contamination at the compliance point that he intends to make a demonstration under this part;

(III) Within 90 days, submit a report to the Division Director which demonstrates that a source other than a regulated unit caused the contamination or that the contamination resulted from error in sampling, analysis, or evaluation;

(III) Within 90 days, submit to the Division Director an application for a permit modification to make any appropriate changes to the detection monitoring program facility; and

(IV) Continue to monitor in accordance with the detection monitoring program established under this subparagraph.

8. If the owner or operator determines that the detection monitoring program no longer satisfies the requirements of this subparagraph, he or she must, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.

(j) Compliance Monitoring Program [40 CFR 264.99]

An owner or operator required to establish a compliance monitoring program under this paragraph must, at a minimum, discharge the following responsibilities:

1. The owner or operator must monitor the ground water to determine whether regulated units are in compliance with the ground-water protection standard under subparagraph (c) of this paragraph. The Commissioner will specify the ground-water protection standard in the facility permit, including:

   (i) A list of the hazardous constituents identified under subparagraph (d) of this paragraph;

   (ii) Concentration limits under subparagraph (e) of this paragraph for each of those hazardous constituents;

   (iii) The compliance point under subparagraph (f) of this paragraph; and

   (iv) The compliance period under subparagraph (g) of this paragraph.

2. The owner or operator must install a ground-water monitoring system at the compliance point as specified under subparagraph (f) of this paragraph. The ground-water monitoring system must comply with subpart (h)1(ii) and parts (h)2 and 3 of this paragraph.

3. The Commissioner will specify the sampling procedures and statistical methods appropriate for the constituents and the facility, consistent with parts (h)7 and 8 of this paragraph.

   (i) The owner or operator must conduct a sampling program for each chemical parameter or hazardous constituent in accordance with part (h)7 of this paragraph.

   (ii) The owner or operator must record ground-water analytical data as measured and in form necessary for the determination of statistical significance under part (h)8 of this paragraph for the compliance period of the facility.

4. The owner or operator must determine whether there is statistically significant evidence of increased contamination for any chemical parameter or hazardous constituent specified in the permit, pursuant to part 1 of this subparagraph, at a frequency specified under part 6 of this subparagraph.

   (i) In determining whether statistically significant evidence of increased contamination exists, the owner or operator must use the method(s) specified in the permit under part (h)8 of this paragraph. The methods(s) must compare data collected at the compliance point(s) to a concentration limit developed in accordance with subparagraph (e) of this paragraph.

   (ii) The owner or operator must determine whether there is statistically significant evidence of increased contamination at each monitoring well at the compliance point within a reasonable time period after completion of sampling. The Commissioner will specify that time period in the facility permit, after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of ground-water samples.

5. The owner or operator must determine the ground-water flow rate and direction in the uppermost aquifer at least annually.

6. The Commissioner will specify the frequencies for collecting samples and conducting statistical tests to determine statistically significant evidence of increased contamination in accordance with part (h)7 of this paragraph. A sequence of at least four samples from each well (background and compliance wells) must be collected at least semi-annually during the compliance period of the facility.

7. The owner or operator must analyze samples from all monitoring wells at the compliance point for all constituents contained in Appendix IX in paragraph (33) of this Rule at least annually to determine whether additional hazardous constituents are present in the uppermost aquifer and, if so, at what concentration, pursuant to procedures in part (i)6 of this paragraph. If the owner or operator finds Appendix IX constituents in the ground water that are not already identified in the permit as monitoring constituents, the owner or operator may resample within one month and repeat the Appendix IX analysis. If the second analysis confirms the presence of new constituents, the owner or operator must report the concentration of these additional constituents to the Division Director within seven days after the completion of the second analysis and add them to the monitoring list. If the owner or operator chooses not to resample, then he or she must report the concentrations of these additional constituents to the Division Director within seven days after completion of the initial analysis and add them to the monitoring list.

8. If the owner or operator determines pursuant to part 4 of this subparagraph that any concentration limits under subparagraph (e) of this paragraph are being exceeded at any monitoring well at the point of compliance he or she must:

   (i) Notify the Commissioner of this finding in writing within seven days. The notification must indicate what concentration limits have been exceeded.

   (ii) Submit to the Commissioner an application for a permit modification to establish a corrective action program meeting the requirements of subparagraph (k) of this paragraph within 180 days, or within 90 days if an engineering feasibility study has been previously submitted to the Commissioner under subpart (i)7(v) of this paragraph. The application must at a minimum include the following information:

      (I) A detailed description of corrective actions that will achieve compliance with the ground-water protection standard specified in the permit under part 1 of this subparagraph; and

      (II) A plan for a ground-water monitoring program that will demonstrate the effectiveness of the corrective action. Such a ground-water monitoring program may be based on a compliance monitoring program developed to meet the requirements of this subparagraph.

9. If the owner or operator determines, pursuant to part 4 of this subparagraph, that the ground-water concentration limits under subparagraph (e) of this paragraph are being exceeded at any monitoring well at the point of compliance, he or she may demonstrate that a source other than a regulated unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis, or statistical evaluation or natural variation in the ground water. In making a demonstration under this part, the owner or operator must:

(i) Notify the Commissioner in writing within seven days that he intends to make a demonstration under this part;

(ii) Within 90 days, submit a report to the Commissioner which demonstrates that a source other than a regulated unit caused the standard to be exceeded or that the apparent noncompliance with the standards resulted from error in sampling, analysis, or evaluation;

(iii) Within 90 days, submit to the Commissioner an application for a permit modification to make any appropriate changes to the compliance monitoring program at the facility; and

(iv) Continue to monitor in accord with the compliance monitoring program established under this subparagraph.

10. If the owner or operator determines that the compliance monitoring program no longer satisfies the requirements of this section, he must, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.

(k) Corrective Action Program [40 CFR 264.100]

An owner or operator required to establish a corrective action program under this subpart must, at a minimum, discharge the following responsibilities:

1. The owner or operator must take corrective action to ensure that regulated units are in compliance with the ground-water protection standard under subparagraph (c) of this paragraph. The Commissioner will specify the ground-water protection standard in the facility permit, including:

(i) A list of the hazardous constituents identified under subparagraph (d) of this paragraph;

(ii) Concentration limits under subparagraph (e) of this paragraph for each of those hazardous constituents;

(iii) The compliance point under subparagraph (f) of this paragraph; and

(iv) The compliance period under subparagraph (g) of this paragraph.

2. The owner or operator must implement a corrective action program that prevents hazardous constituents from exceeding their respective concentration limits at the compliance point by removing the hazardous waste constituents or treating them in place. The permit will specify the specific measures that will be taken.

3. The owner or operator must begin corrective action within a reasonable time period after the ground-water protection standard is exceeded. The Commissioner will specify that time period in the facility permit. If a facility permit includes a corrective action program in addition to a compliance monitoring program, the permit will specify when the corrective action will begin and such a requirement will operate in lieu of subpart (j)9(ii) of this paragraph.

4. In conjunction with a corrective action program, the owner or operator must establish and implement a ground-water monitoring program to demonstrate the effectiveness of the corrective action program. Such a monitoring program may be based on the

requirements for a compliance monitoring program under subparagraph (j) of this paragraph and must be as effective as that program in determining compliance with the ground-water protection standard under subparagraph (c) of this paragraph and in determining the success of a corrective action program under part 5 of this subparagraph, where appropriate.

5. In addition to the other requirements of this subparagraph, the owner or operator must conduct a corrective action program to remove or treat in place any hazardous constituents under subparagraph (d) of this paragraph that exceed concentration limits under subparagraph (e) of this paragraph in groundwater:

   (i) Between the compliance point under subparagraph (f) of this paragraph and the downgradient property boundary; and

   (ii) Beyond the facility boundary, where necessary to protect human health and the environment, unless the owner or operator demonstrates to the satisfaction of the Commissioner that, despite the owner's or operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such action. The owner/operator is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis.

   (iii) Corrective action measures under this part must be initiated and completed within a reasonable period of time considering the extent of contamination.

   (iv) Corrective action measures under this part may be terminated once the concentration of hazardous constituents under subparagraph (d) of this paragraph is reduced to levels below their respective concentration limits under subparagraph (e) of this paragraph.

6. The owner or operator must continue corrective action measures during the compliance period to the extent necessary to ensure that the ground-water protection standard is not exceeded. If the owner or operator is conducting corrective action at the end of the compliance period, he must continue that corrective action for as long as necessary to achieve compliance with the ground-water protection standard. The owner or operator may terminate corrective action measures taken beyond the period equal to the active life of the waste management area (including the closure period) if he can demonstrate, based on data from the ground-water monitoring program under part 4 of this subparagraph, that the ground-water protection standard of subparagraph (c) of this paragraph has not been exceeded for a period of three consecutive years.

7. The owner or operator must report in writing to the Commissioner on the effectiveness of the corrective action program. The owner or operator must submit these reports semi-annually.

8. If the owner or operator determines that the corrective action program no longer satisfies the requirements of this subparagraph, he must, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.

(l) Corrective Action For Solid Waste Management Units [40 CFR 264.101]

1. The owner or operator of a facility seeking a permit for the treatment, storage or disposal of hazardous waste must institute corrective action as necessary to protect human health

and the environment for all releases of hazardous waste or constituents from any solid waste management unit at the facility, regardless of the time at which waste was placed in such unit.

2. Corrective action will be specified in the permit in accordance with this subparagraph and paragraph (22) of this Rule. The permit will contain schedules of compliance for such corrective action (where such corrective action cannot be completed prior to issuance of the permit) and assurances of financial responsibility for completing such corrective action.

3. The owner or operator must implement corrective actions beyond the facility property boundary, where necessary to protect human health and the environment, unless the owner or operator demonstrates to the satisfaction of the Commissioner that, despite the owner's or operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such actions. The owner/operator is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis. Assurances of financial responsibility for such corrective action must be provided.

4. This does not apply to remediation waste management sites unless they are part of a facility subject to a permit for treating, storing or disposing of hazardous wastes that are not remediation wastes.

(7) Closure and Post-Closure [40 CFR 264 Subpart G]

(a) Applicability [40 CFR 264.110]

Except as subparagraphs (1)(b) and (1)(d) of this Rule provide otherwise:

1. Subparagraphs (b) through (f) of this paragraph (which concern closure) apply to the owners and operators of all hazardous waste management facilities; and

2. Subparagraphs (g) through (k) of this paragraph (which concern post-closure care) apply to the owners and operators of:

(i) All hazardous waste disposal facilities;

(ii) Waste piles and surface impoundments from which the owner or operator intends to remove the wastes at closure to the extent that these sections are made applicable to such facilities in subparagraphs (11)(i) or (12)(i) of this Rule;

(iii) Tank systems that are required under subparagraph (10)(h) of this Rule to meet the requirements for landfills; and

(iv) Containment buildings that are required under subparagraph (33)(c) of this Rule to meet the requirement for landfills.

3. The Commissioner may replace all or part of the requirements of this paragraph (and the unit-specific standards referenced in part (b)3 of this paragraph applying to a regulated unit), with alternative requirements set out in a permit or in an enforceable document (as defined in Rule 1200-1-11-.07(1)(b)9), where the Commissioner determines that:

(i) A regulated unit is situated among solid waste management units (or areas of concern), a release has occurred, and both the regulated unit and one or more solid waste management unit(s) (or areas of concern) are likely to have contributed to the release, and

(ii) It is not necessary to apply the closure requirements of this paragraph (and those referenced herein) because the alternative requirements will protect human health and the environment, and will satisfy the closure performance standard of part (b)1 and 2 of this paragraph.

(b) Closure Performance Standard [40 CFR 264.111]

The owner or operator must close the facility in a manner that:

1. Minimizes the need for further maintenance; and

2. Controls, minimizes or eliminates, to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the ground or surface waters or to the atmosphere; and

3. Complies with the closure requirements of this paragraph, including, but not limited to, the requirements of subparagraphs (9)(i), (10)(h), (11)(i), (12)(i), (13)(k), (14)(k), (15)(h), paragraphs (16) and (17), and subparagraphs (27)(b)-(d) and (33)(c).

(c) Closure Plan; Amendment of Plan [40 CFR 264.112]

1. Written Plan

(i) The owner or operator of a hazardous waste management facility must have a written closure plan. In addition, certain surface impoundments and waste piles from which the owner or operator intends to remove or decontaminate the hazardous waste at partial or final closure are required by items (11)(i)3(i)(I) and (12)(i)3(i)(I) of this Rule to have contingent closure plans. The plan must be submitted with the permit application, in accordance with Rule 1200-1-11-.07(5)(a)13, and approved by the Commissioner as part of the permit issuance procedures under Rule 1200-1-11-.07(7). In accordance with Rule 1200-1-11-.07(8)(b), the approved closure plan will become a condition of the permit.

(ii) The Commissioner's approval of the plan must ensure that the approved closure plan is consistent with subparagraphs (7)(b)-(f) of this paragraph and the applicable requirements of paragraph (6), subparagraphs (9)(i), (10)(h), (11)(i), (12)(i), (13)(k), (14)(k), (15)(h), paragraphs (16) and (17) and subparagraphs (27)(b) and (33)(c). Until final closure is completed and certified in accordance with subparagraph (f) of this paragraph, a copy of the approved plan and all approved revisions must be furnished to the Commissioner upon request, including requests by mail.

2. Content of Plan

The plan must identify steps necessary to perform partial and/or final closure of the facility at any point during its active life. The closure plan must include, at least:

(i) A description of how each hazardous waste management unit at the facility will be closed in accordance with subparagraph (b) of this paragraph; and

(ii) A description of how final closure of the facility will be conducted in accordance with subparagraph (b) of this paragraph. The description must identify the maximum extent of the operations which will be unclosed during the active life of the facility; and

(iii) An estimate of the maximum inventory of hazardous wastes ever on-site over the active life of the facility and a detailed description of the methods to be used during partial closures and final closure, including, but not limited to, methods for removing, transporting, treating, storing, or disposing of all hazardous wastes, and identification of the type(s) of the off-site hazardous waste management units to be used, if applicable; and

(iv) A detailed description of the steps needed to remove or decontaminate all hazardous waste residues and contaminated containment system components, equipment, structures, and soils during partial and final closure, including, but not limited to, procedures for cleaning equipment and removing contaminated soils, methods for sampling and testing surrounding soils, and criteria for determining the extent of decontamination required to satisfy the closure performance standard; and

(v) A detailed description of other activities necessary during the closure period to ensure that all partial closures and final closure satisfy the closure performance standards, including, but not limited to, ground-water monitoring, leachate collection, and run-on and run-off control; and

(vi) A schedule for closure of each hazardous waste management unit and for final closure of the facility. The schedule must include, at a minimum, the total time required to close each hazardous waste management unit and the time required for intervening closure activities which will allow tracking of the progress of partial and final closure. (For example, in the case of a landfill unit, estimates of the time required to treat or dispose of all hazardous waste inventory and of the time required to place a final cover must be included.); and

(vii) For facilities that are expected to close prior to the expiration of the permit, an estimate of the expected year of final closure; and

(viii) Construction drawings showing details of the final cover (if any) necessary to ensure that the applicable closure requirements of this Rule will be accomplished.

(ix) For facilities where the Commissioner has applied alternative requirements at a regulated unit under parts (6)(a)6, (7)(a)3, and/or (8)(a)4 of this Rule, either the alternative requirements applying to the regulated unit, or a reference to the enforceable document containing those alternative requirements.

3. Amendment of Plan

The owner or operator must submit a written notification of or request for a permit modification to authorize a change in operating plans, facility design, or the approved closure plan in accordance with the applicable procedures in Rule 1200-1-11-.07(9). The

written notification or request must include four (4) copies of the amended closure plan for review or approval by the Commissioner.

(i) The owner or operator may submit a written notification or request to the Commissioner for a permit modification to amend the closure plan at any time prior to the notification of partial or final closure of the facility.

(ii) The owner or operator must submit a written notification of or request for a permit modification to authorize a change in the approved closure plan whenever:

(I) Changes in operating plans or facility design affect the closure plan, or

(II) There is a change in the expected year of closure, if applicable, or

(III) In conducting partial or final closure activities, unexpected events require a modification of the approved closure plan.

(IV) The owner or operator requests the Commissioner to apply alternative requirements to a regulated unit under parts (6)(a)6, (7)(a)3, and/or (8)(a)4 of this Rule.

(iii) The owner or operator must submit a written request for a permit modification including at least four (4) copies of the amended closure plan for approval at least 60 days prior to the proposed change in facility design or operation, or no later than 60 days after an unexpected event has occurred which has affected the closure plan. If an unexpected event occurs during the partial or final closure period, the owner or operator must request a permit modification no later than 30 days after the unexpected event. An owner or operator of a surface impoundment or waste pile that intends to remove all hazardous waste at closure and is not otherwise required to prepare a contingent closure plan under items (11)(i)3(i)(I) or (12)(i)3(i)(I) of this Rule must submit at least four (4) copies of an amended closure plan to the Commissioner no later than 60 days from the date that the owner or operator or Commissioner determines that the hazardous waste management unit must be closed as a landfill, subject to the requirements of subparagraph (14)(k) of this Rule, or no later than 30 days from that date if the determination is made during partial or final closure. The Commissioner will approve, disapprove, or modify this amended plan in accordance with the procedures in Rule 1200-1-11-.07. In accordance with Rule 1200-1-11-.07(8)(b), the approved closure plan will become a condition of any permit issued.

(iv) The Commissioner may request modifications to the plan under the conditions described in subpart (ii) of this part. The owner or operator must submit the modified plan within 60 days of the Commissioner's request, or within 30 days if the change in facility conditions occurs during partial or final closure. Any modifications requested by the Commissioner will be approved in accordance with the procedures in Rule 1200-1-11-.07.

4. Notification of Partial Closure and Final Closure

(i) The owner or operator must notify the Commissioner in writing at least 60 days prior to the date on which he expects to begin closure of a surface impoundment, waste pile, land treatment or landfill unit, or final closure of a

facility with such a unit. The owner or operator must notify the Commissioner in writing at least 45 days prior to the date on which he expects to begin final closure of a facility with only treatment or storage tanks, container storage, or incinerator units to be closed. The owner or operator must notify the Commissioner in writing at least 45 days prior to the date on which he expects to begin partial or final closure of a boiler or industrial furnace, whichever is earlier.

(ii) The date when he "expects to begin closure" must be either:

(I) No later than 30 days after the date on which any hazardous waste management unit receives the known final volume of hazardous wastes, or if there is a reasonable possibility that the hazardous waste management unit will receive additional hazardous wastes, no later than one year after the date on which the unit received the most recent volume of hazardous wastes. If the owner or operator of a hazardous waste management unit can demonstrate to the Commissioner that the hazardous waste management unit or facility has the capacity to receive additional hazardous wastes and he has taken all steps to prevent threats to human health and the environment, including compliance with all applicable permit requirements, the Commissioner may approve an extension to this one-year limit; or

(II) For units meeting the requirements of part (d)4 of this paragraph, no later than 30 days after the date on which the hazardous waste management unit receives the known final volume of non-hazardous wastes, or if there is a reasonable possibility that the hazardous waste management unit will receive additional non-hazardous wastes, no later than one year after the date on which the unit received the most recent volume of non-hazardous wastes. If the owner or operator can demonstrate to the Commissioner that the hazardous waste management unit has the capacity to receive additional non-hazardous wastes and he has taken, and will continue to take, all steps to prevent threats to human health and the environment, including compliance with all applicable permit requirements, the Commissioner may approve an extension to this one-year limit.

(iii) If the facility's permit is terminated, or if the facility is otherwise ordered, by judicial decree or final order under T.C.A. §68-212-111, to cease receiving hazardous wastes or to close, then the requirements of this part do not apply. However, the owner or operator must close the facility in accordance with the deadlines established in subparagraph (d) of this paragraph.

5. Removal of wastes and decontamination or dismantling of equipment. Nothing in this subparagraph shall preclude the owner or operator from removing hazardous wastes and decontaminating or dismantling equipment in accordance with the approved partial or final closure plan at any time before or after notification of partial or final closure.

(d) Closure; Time Allowed for Closure [40 CFR 264.113]

1. Within 90 days after receiving the final volume of hazardous wastes, or the final volume of non-hazardous wastes if the owner or operator complies with all applicable requirements in parts 4 and 5 of this subparagraph, at a hazardous waste management unit or facility, the owner or operator must treat, remove from the unit or facility, or

dispose of on-site, all hazardous wastes in accordance with the approved closure plan. The Commissioner may approve a longer period if the owner or operator complies with all applicable requirements for requesting a modification to the permit and demonstrates that:

(i) (I) The activities required to comply with this part will, of necessity, take longer than 90 days to complete; or

(II) I. The hazardous waste management unit or facility has the capacity to receive additional hazardous wastes, or has the capacity to receive non-hazardous wastes if the owner or operator complies with parts 4 and 5 of this subparagraph; and

II. There is a reasonable likelihood that he or another person will recommence operation of the hazardous waste management unit or the facility within one year; and

III. Closure of the hazardous waste management unit or facility would be incompatible with continued operation of the site; and

(ii) He has taken and will continue to take all steps to prevent threats to human health and the environment, including compliance with all applicable permit requirements.

2. The owner or operator must complete partial and final closure activities in accordance with the approved closure plan and within 180 days after receiving the final volume of hazardous wastes, or the final volume of non-hazardous wastes if the owner or operator complies with all applicable requirements in parts 4 and 5 of this subparagraph, at the hazardous waste management unit or facility. The Commissioner may approve an extension to the closure period if the owner or operator complies with all applicable requirements for requesting a modification to the permit and demonstrates that:

(i) (I) The partial or final closure activities will, of necessity, take longer than 180 days to complete; or

(II) I. The hazardous waste management unit or facility has the capacity to receive additional hazardous wastes, or has the capacity to receive non-hazardous wastes if the owner or operator complies with parts 4 and 5 of this subparagraph; and

II. There is reasonable likelihood that he or another person will recommence operation of the hazardous waste management unit or the facility within one year; and

III. Closure of the hazardous waste management unit or facility would be incompatible with continued operation of the site; and

(ii) He has taken and will continue to take all steps to prevent threats to human health and the environment from the unclosed but not operating hazardous waste management unit or facility, including compliance with all applicable permit requirements.

3. The demonstrations referred to in subparts 1(i) and 2(i) of this subparagraph must be made as follows:

   (i) The demonstrations in subpart 1(i) of this subparagraph must be made at least 30 days prior to the expiration of the 90-day period in part 1 of this subparagraph; and

   (ii) The demonstration in subpart 2(i) of this subparagraph must be made at least 30 days prior to the expiration of the 180-day period in part 2 of this subparagraph, unless the owner or operator is otherwise subject to the deadlines in part 4 of this subparagraph.

4. The Commissioner may allow an owner or operator to receive only non-hazardous wastes in a landfill, land treatment, or surface impoundment unit after the final receipt of hazardous wastes at that unit if:

   (i) The owner or operator requests a permit modification in compliance with all applicable requirements in Rule 1200-1-11-.07 and in the permit modification request demonstrates that:

      (I) The unit has the existing design capacity as indicated on the part A application to receive non-hazardous wastes; and

      (II) There is a reasonable likelihood that the owner or operator or another person will receive non-hazardous wastes in the unit within one year after the final receipt of hazardous wastes; and

      (III) The non-hazardous wastes will not be incompatible with any remaining wastes in the unit, or with the facility design and operating requirements of the unit or facility under this part; and

      (IV) Closure of the hazardous waste management unit would be incompatible with continued operation of the unit or facility; and

      (V) The owner or operator is operating and will continue to operate in compliance with all applicable permit requirements; and

   (ii) The request to modify the permit includes an amended waste analysis plan, ground-water monitoring and response program, human exposure assessment required under federal RCRA section 3019, and closure and post-closure plans, and updated cost estimates and demonstrations of financial assurance for closure and post-closure care as necessary and appropriate, to reflect any changes due to the presence of hazardous constituents in the non-hazardous wastes, and changes in closure activities, including the expected year of closure if applicable under subpart (c)2(vii) of this paragraph, as a result of the receipt of non-hazardous wastes following the final receipt of hazardous wastes; and

   (iii) The request to modify the permit includes revisions, as necessary and appropriate, to affected conditions of the permit to account for the receipt of non-hazardous wastes following receipt of the final volume of hazardous wastes; and

   (iv) The request to modify the permit and the demonstrations referred to in subparts (i) and (ii) of this part are submitted to the Commissioner no later than 120 days

prior to the date on which the owner or operator of the facility receives the known final volume of hazardous wastes at the unit, or no later than 90 days after the effective date of this rule in the state in which the unit is located, whichever is later.

5. In addition to the requirements in part 4 of this subparagraph, an owner or operator of a hazardous waste surface impoundment that is not in compliance with the liner and leachate collection system requirements in part (11)(b)3 of this Rule must:

(i) Submit with the request to modify the permit:

(I) A contingent corrective measures plan, unless a corrective action plan has already been submitted under subparagraph (6)(j) of this Rule; and

(II) A plan for removing hazardous wastes in compliance with subpart (ii) of this part; and

(ii) Remove all hazardous wastes from the unit by removing all hazardous liquids, and removing all hazardous sludges to the extent practicable without impairing the integrity of the liner(s), if any.

(iii) Removal of hazardous wastes must be completed no later than 90 days after the final receipt of hazardous wastes. The Commissioner may approve an extension to this deadline if the owner or operator demonstrates that the removal of hazardous wastes will, of necessity, take longer than the allotted period to complete and that an extension will not pose a threat to human health and the environment.

(iv) If a release that is a statistically significant increase (or decrease in the case of pH) over background values for detection monitoring parameters or constituents specified in the permit or that exceeds the facility's ground-water protection standard at the point of compliance, if applicable, is detected in accordance with the requirements in paragraph (6) of this Rule, the owner or operator of the unit:

(I) Must implement corrective measures in accordance with the approved contingent corrective measures plan required by subpart (i) of this part no later than one year after detection of the release, or approval of the contingent corrective measures plan, whichever is later;

(II) May continue to receive wastes at the unit following detection of the release only if the approved corrective measures plan includes a demonstration that continued receipt of wastes will not impede corrective action; and

(III) May be required by the Commissioner to implement corrective measures in less than one year or to cease the receipt of wastes until corrective measures have been implemented if necessary to protect human health and the environment.

(v) During the period of corrective action, the owner or operator shall provide semi-annual reports to the Commissioner that describe the progress of the corrective action program, compile all ground-water monitoring data, and evaluate the effect of the continued receipt of non-hazardous wastes on the effectiveness of the corrective action.

(vi) The Commissioner may require the owner or operator to commence closure of the unit if the owner or operator fails to implement corrective action measures in accordance with the approved contingent corrective measures plan within one year as required in subpart (iv) of this part, or fails to make substantial progress in implementing corrective action and achieving the facility's ground-water protection standard or background levels if the facility has not yet established a ground-water protection standard.

(vii) If the owner or operator fails to implement corrective measures as required in subpart (iv) of this part, or if the Commissioner determines that substantial progress has not been made pursuant to subpart (vi) of this part he shall:

(I) Notify the owner or operator in writing that the owner or operator must begin closure in accordance with the deadlines in parts 1 and 2 of this subparagraph and provide a detailed statement of reasons for this determination, and

(II) Provide the owner or operator and the public, through a newspaper notice, the opportunity to submit written comments on the decision no later than 20 days after the date of the notice.

(III) If the Commissioner receives no written comments, the decision will become final five days after the close of the comment period. The Commissioner will notify the owner or operator that the decision is final, and that a revised closure plan, if necessary, must be submitted within 15 days of the final notice and that closure must begin in accordance with the deadlines in parts 1 and 2 of this subparagraph.

(IV) If the Commissioner receives written comments on the decision, he shall make a final decision within 30 days after the end of the comment period, and provide the owner or operator in writing and the public through a newspaper notice, a detailed statement of reasons for the final decision. If the Commissioner determines that substantial progress has not been made, closure must be initiated in accordance with the deadlines in parts 1 and 2 of this subparagraph.

(V) The final determinations made by the Commissioner under items (III) and (IV) of this subpart are not subject to administrative appeal.

(e) Disposal or Decontamination of Equipment, Structures and Soils [40 CFR 264.114]

During the partial and final closure periods, all contaminated equipment, structures and soils must be properly disposed of or decontaminated unless otherwise specified in subparagraphs (10)(h), (11)(i), (12)(i), (13)(k), (14)(k), (27)(b) or (27)(d) of this Rule. By removing any hazardous wastes or hazardous constituents during partial and final closure, the owner or operator may become a generator of hazardous waste and must handle that waste in accordance with all applicable requirements of Rule 1200-1-11-.03.

(f) Certification of Closure [40 CFR 264.115]

Within 60 days of completion of closure of each hazardous waste surface impoundment, waste pile, land treatment, and landfill unit, and within 60 days of the completion of final closure, the owner or operator must submit to the Commissioner, by registered mail, at least 4 copies of a

certification that the hazardous waste management unit or facility, as applicable, has been closed in accordance with the specifications in the approved closure plan. The certification must be signed by the owner or operator and by an independent registered professional engineer as defined in Rule 1200-1-11-.01(2)(a). Documentation supporting the independent registered professional engineer's certification must be furnished to the Commissioner upon request until he releases the owner or operator from the financial assurance requirements for closure under part (8)(d)4 of this Rule.

(g) Survey Plat [40 CFR 264.116]

No later than the submission of the certification of closure of each hazardous waste disposal unit, the owner or operator must submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the Commissioner, at least 4 copies of a survey plat indicating the location and dimensions of landfills cells or other hazardous waste disposal units with respect to permanently surveyed benchmarks. This plat must be prepared and certified by a professional land surveyor. The plat filed with the local zoning authority, or the authority with jurisdiction over local land use, must contain a note, prominently displayed, which states the owner's or operator's obligation to restrict disturbance of the hazardous waste disposal unit in accordance with the applicable regulations of this paragraph.

(h) Post-closure Care and Use of Property [40 CFR 264.117]

1. (i) Post-closure care for each hazardous waste management unit subject to the requirements of subparagraphs (h)-(k) of this paragraph must begin after completion of closure of the unit and continue for 30 years after that date and must consist of at least the following:

(I) Monitoring and reporting in accordance with the requirements of paragraphs (6), (11), (12), (13), (14) and (27) of this Rule; and

(II) Maintenance and monitoring of waste containment systems in accordance with the requirements of paragraphs (6), (11), (12), (13), (14) and (27) of this Rule.

(ii) Any time preceding partial closure of a hazardous waste management unit subject to post-closure care requirements or final closure, or any time during the post-closure period for a particular unit, the Commissioner may, in accordance with the permit modification procedures in Rule 1200-1-11-.07:

(I) Shorten the post-closure care period applicable to the hazardous waste management unit, or facility, if all disposal units have been closed, if he finds that the reduced period is sufficient to protect human health and the environment (e.g., leachate or ground-water monitoring results, characteristics of the hazardous wastes, application of advanced technology, or alternative disposal, treatment, or re-use techniques indicate that the hazardous waste management unit or facility is secure); or

(II) Extend the post-closure care period applicable to the hazardous waste management unit or facility if he finds that the extended period is necessary to protect human health and the environment (e.g., leachate or ground-water monitoring results indicate a potential for migration of hazardous wastes at levels which may be harmful to human health and the environment).

2. The Commissioner may require, at partial and final closure, continuation of any of the security requirements of subparagraph (2)(e) of this Rule during part or all of the post-closure period when:

   (i) Hazardous wastes may remain exposed after completion of partial or final closure; or

   (ii) Access by the public or domestic livestock may pose a hazard to human health.

3. Post-closure use of property on or in which hazardous wastes remain after partial or final closure must never be allowed to disturb the integrity of the final cover, liner(s), or any other components of the containment system, or the function of the facility's monitoring systems, unless the Commissioner finds that the disturbance:

   (i) Is necessary to the proposed use of the property, and will not increase the potential hazard to human health or the environment; or

   (ii) Is necessary to reduce a threat to human health or the environment.

4. All post-closure care activities must be in accordance with the provisions of the approved post-closure plan as specified in subparagraph (i) of this paragraph.

(i) Post-closure Plan; Amendment of Plan [40 CFR 264.118]

1. Written Plan

   The owner or operator of a hazardous waste disposal unit must have a written post-closure plan. In addition, certain surface impoundments and waste piles from which the owner or operator intends to remove or decontaminate the hazardous wastes at partial or final closure are required by items (11)(i)3(i)(II) and (12)(i)3(i)(II) of this Rule to have contingent post-closure plans. Owners or operators of surface impoundments and waste piles not otherwise required to prepare contingent post-closure plans under items (11)(i)3(i)(II) and (12)(i)3(i)(II) of this Rule must submit a post-closure plan to the Commissioner within 90 days from the date that the owner or operator or Commissioner determines that the hazardous waste management unit must be closed as a landfill, subject to the requirements of subparagraphs (h) through (k) of this paragraph. The plan must be submitted with the permit application, in accordance with Rule 1200-1-11-.07(5)(a)13, and approved by the Commissioner as part of the permit issuance procedures under Rule 1200-1-11-.07(7). In accordance with Rule 1200-1-11-.07(8)(b), the approved post-closure plan will become a condition of the permit issued.

2. For each hazardous waste management unit subject to the requirements of this subparagraph, the post-closure plan must identify the activities that will be carried on after closure of each disposal unit and the frequency of these activities, and include at least:

   (i) A description of the planned monitoring activities and frequencies at which they will be performed to comply with paragraphs (6), (11), (12), (13), (14) and (27) of this Rule during the post-closure care period; and

   (ii) A description of the planned maintenance activities, and frequencies at which they will be performed, to ensure:

(I) The integrity of the cap and final cover or other containment systems in accordance with the requirements of paragraphs (6), (11), (12), (13), (14) and (27) of this Rule; and

(II) The function of the monitoring equipment in accordance with the requirements of paragraphs (6), (11), (12), (13), (14) and (27) of this Rule; and

(iii) The name, address, and phone number of the person or office to contact about the hazardous waste disposal unit or facility during the post-closure care period.

(iv) For facilities where the Commissioner has applied alternative requirements at a regulated unit under parts (6)(a)6, (7)(a)3, and/or (8)(a)4 of this Rule, either the alternative requirements that apply to the regulated unit, or a reference to the enforceable document containing those requirements.

3. Until final closure of the facility, four (4) copies of the approved post-closure plan must be furnished to the Commissioner upon request, including request by mail. After final closure has been certified, the person or office specified in subpart 2(iii) of this subparagraph must keep the approved post-closure plan during the remainder of the post-closure period.

4. Amendment of Plan

The owner or operator must submit a written notification of or request for a permit modification to authorize a change in the approved post-closure plan in accordance with the applicable requirements of Rule 1200-1-11-.07. The written notification or request must include 4 copies of the amended post-closure plan for review or approval by the Commissioner.

(i) The owner or operator may submit a written notification or request to the Commissioner for a permit modification to amend the post-closure plan at any time during the active life of the facility or during the post-closure care period.

(ii) The owner or operator must submit a written notification of or request for a permit modification to authorize a change in the approved post-closure plan whenever:

(I) Changes in operating plans or facility design affect the approved post-closure plan, or

(II) There is a change in the expected year of final closure, if applicable, or

(III) Events which occur during the active life of the facility, including partial and final closures, affect the approved post-closure plan.

(IV) The owner or operator requests the Commissioner to apply alternative requirements to a regulated unit under parts (6)(a)6, (7)(a)3, and/or (8)(a)4 of this Rule.

(iii) The owner or operator must submit a written request for a permit modification at least 60 days prior to the proposed change in facility design or operation, or no later than 60 days after an unexpected event has occurred which has affected the post-closure plan. An owner or operator of a surface impoundment or waste

pile that intends to remove all hazardous waste at closure and is not otherwise required to submit a contingent post-closure plan under items (11)(i)3(i)(II) and (12)(i)3(i)(II) of this Rule must submit a post-closure plan to the Commissioner no later than 90 days after the date that the owner or operator or Commissioner determines that the hazardous waste management unit must be closed as a landfill, subject to the requirements of subparagraph (14)(k) of this paragraph. The Commissioner will approve, disapprove or modify this plan in accordance with the procedures in Rule 1200-1-11-.07. In accordance with Rule 1200-1-11-.07(8)(b), the approved post-closure plan will become a permit condition.

(iv) The Commissioner may request modifications to the plan under the conditions described in subpart (ii) of this part. The owner or operator must submit the modified plan no later than 60 days after the Commissioner's request, or no later than 90 days if the unit is a surface impoundment or waste pile not previously required to prepare a contingent post-closure plan. Any modifications requested by the Commissioner will be approved, disapproved, or modified in accordance with the procedures in Rule 1200-1-11-.07.

(j) Post-closure Notices [40 CFR 264.119]

1. No later than 60 days after certification of closure of each hazardous waste disposal unit, the owner or operator must submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the Commissioner at least 4 copies of a record of the type, location, and quantity of hazardous wastes disposed of within each cell or other disposal unit of the facility. For hazardous wastes disposed of before March 2, 1981, the owner or operator must identify the type, location, and quantity of the hazardous wastes to the best of his knowledge and in accordance with any records he has kept.

2. Within 60 days of certification of closure of the first hazardous waste disposal unit and within 60 days of certification of closure of the last hazardous waste disposal unit, the owner or operator must:

(i) Record, in accordance with State law, a notation on the deed to the facility property -- or on some other instrument which is normally examined during title search -- that will in perpetuity notify any potential purchaser of the property that:

(I) The land has been used to manage hazardous wastes; and

(II) Its use is restricted under Tennessee Rule Chapter 1200-1-11 regulations; and

(III) The survey plat and record of the type, location, and quantity of hazardous wastes disposed of within each cell or other hazardous waste disposal unit of the facility required by subparagraph (g) and part (j)1 of this paragraph have been filed with the local zoning authority or the authority with jurisdiction over local land use and with the Commissioner; and

(ii) Submit a certification, signed by the owner or operator, that he has recorded the notation specified in subpart (i) of this part, including a copy of the document in which the notation has been placed, to the Commissioner.

3. If the owner or operator or any subsequent owner or operator of the land upon which a hazardous waste disposal unit is located wishes to remove hazardous wastes and hazardous waste residues, the liner, if any, contaminated soils, he must request a modification to the post-closure permit in accordance with the applicable requirements of Rule 1200-1-11-.07. The owner or operator must demonstrate that the removal of hazardous wastes will satisfy the criteria of part (h)3 of this paragraph. By removing hazardous waste, the owner or operator may become a generator of hazardous waste and must manage it in accordance with all applicable requirements of Rule Chapter 1200-1-11. If he is granted a permit modification or otherwise granted approval to conduct such removal activities, the owner or operator may request that the Commissioner approve either:

(i) The removal of the notation on the deed to the facility property or other instrument normally examined during title search; or

(ii) The addition of a notation to the deed or instrument indicating the removal of the hazardous waste.

(k) Certification of Completion of Post-closure Care [40 CFR 264.120]

No later than 60 days after completion of the established post-closure care period for each hazardous waste disposal unit, the owner or operator must submit to the Commissioner, by registered mail, at least four (4) copies of a certification that the post-closure care period for the hazardous waste disposal unit was performed in accordance with the specifications in the approved post-closure plan. The certification must be signed by the owner or operator and an independent registered professional engineer. Documentation supporting the independent registered professional engineer's certification must be furnished to the Commissioner upon request until he releases the owner or operator from the financial assurance requirements for post-closure care under part (8)(f)4 of this Rule.

(8) Financial Requirements [40 CFR 264 Subpart H]

(a) Applicability [40 CFR 264.140]

1. The requirements of subparagraphs (c), (d), (g), (h), (i) and (k) through (p) apply to owners and operators of all hazardous waste facilities, except as provided otherwise in this subparagraph or in subparagraph (1)(b) of this Rule.

2. The requirements of subparagraphs (e), (f), and (j) of this paragraph apply only to owners and operators of:

(i) Disposal facilities;

(ii) Piles, and surface impoundments from which the owner or operator intends to remove the wastes at closure, to the extent that these sections are made applicable to such facilities by subparagraphs (11)(i) and (12)(i) of this Rule;

(iii) Tank systems that are required under subparagraph (10)(h) of this Rule to meet the requirements for landfills; and

(iv) Containment buildings that are required under subparagraph (33)(c) of this Rule to meet the requirements for landfills.

3. State and Federal governments are exempt from the requirements of this paragraph except for part (f)6. Part (f)6 shall be applicable to permitted facilities or any site that otherwise will eventually cease to operate while containing, storing, or otherwise treating hazardous wastes.

4. The Commissioner may replace all or part of the requirements of this paragraph applying to a regulated unit with alternative requirements for financial assurance set out in the permit or in an enforceable document (as defined in Rule 1200-1-11-.07(1)(b)9), where the Commissioner:

   (i) Prescribes alternative requirements for the regulated unit under parts (6)(a)6 and/or (7)(a)3 of this Rule, and

   (ii) Determines that it is not necessary to apply the requirements of this paragraph because the alternative financial assurance requirements will protect human health and the environment.

(b) Definitions of Terms Used in This Paragraph [40 CFR 264.141]

1. "Closure plan" means the plan for closure prepared in accordance with the requirements of subparagraph (7)(c) of this Rule.

2. "Current closure cost estimate" means the most recent of the estimates prepared in accordance with parts (c)1, 2, and 3 of this paragraph.

3. "Current post-closure cost estimate" means the most recent of the estimates prepared in accordance with parts (e)1, 2, and 3 of this paragraph.

4. “Division Director” means the Director of the Division of Solid Waste Management of the Department. This person also serves as the Technical Secretary to the Board, and functions as the chief of staff to both the Commissioner and the Board in matters relating to these Rules and their implementation.

5. "Parent corporation" means a corporation which directly owns at least 50 percent of the voting stock of the corporation which is the facility owner or operator; the latter corporation is deemed a "subsidiary" of the parent corporation.

6. "Post-closure plan" means the plan for post-closure care prepared in accordance with the requirements of subparagraphs (7)(h)-(k) of this Rule.

7. The following terms are used in the specifications for the financial tests for financial assurance for closure, post-closure care, and liability coverage. The definitions are intended to assist in the understanding of these regulations and are not intended to limit the meanings of terms in a way that conflicts with generally accepted accounting practices.

   "Assets" means all existing and all probable future economic benefits obtained or controlled by a particular entity.

   "Current assets" means cash or other assets or resources commonly identified as those which are reasonably expected to be realized in cash or sold or consumed during the normal operating cycle of the business.

"Current liabilities" means obligations whose liquidation is reasonably expected to require the use of existing resources properly classifiable as current assets or the creation of other current liabilities.

"Current plugging and abandonment cost estimate" means the most recent of the estimates prepared in accordance with Tennessee Rule 1200-4-6-.09(10) or 40 CFR 144.62(a), (b), and (c) (as this Federal regulation exists on the effective date of this rulemaking), whichever is greater.

"Independently audited" refers to an audit performed by an independent certified public accountant in accordance with generally accepted auditing standards.

"Liabilities" means probable future sacrifices of economic benefits arising from present obligations to transfer assets or provide services to other entities in the future as a result of past transactions or events.

"Net working capital" means current assets minus current liabilities.

"Net worth" means total assets minus total liabilities and is equivalent to owner's equity.

"Tangible net worth" means the tangible assets that remain after deducting liabilities; such assets would not include intangibles such as goodwill and rights to patents or royalties.

8. In the liability insurance requirements the terms "bodily injury" and "property damage" shall have the meanings given these terms by applicable Tennessee law. However, these terms do not include those liabilities which, consistent with standard industry practices, are excluded from coverage in liability policies for bodily injury and property damage. The Department intends the meanings of other terms used in the liability insurance requirements to be consistent with their common meanings within the insurance industry. The definitions given below of several of the terms are intended to assist in the understanding of these regulations and are not intended to limit their meanings in a way that conflicts with general insurance industry usage.

"Accidental occurrence" means an accident, including continuous or repeated exposure to conditions, which results in bodily injury or property damage neither expected nor intended from the standpoint of the insured.

"Legal defense costs" means any expenses that an insurer incurs in defending against claims of third parties brought under the terms and conditions of an insurance policy.

"Nonsudden accidental occurrence" means an occurrence which takes place over time and involves continuous or repeated exposure.

"Sudden accidental occurrence" means an occurrence which is not continuous or repeated in nature.

9. "Substantial business relationship" means the extent of a business relationship necessary under applicable Tennessee law to make a guarantee contract issued incident to that relationship valid and enforceable. A "substantial business relationship" must arise from a pattern of recent or ongoing business transactions, in addition to the guarantee itself,

such that a currently existing business relationship between the guarantor and the owner or operator is demonstrated to the satisfaction of the Commissioner.

(c) Cost Estimate for Closure [40 CFR 264.142]

1. The owner or operator must have a detailed written estimate, in current dollars, of the cost of closing the facility in accordance with the requirements in subparagraphs (7)(b)-(f) of this Rule and applicable closure requirements in subparagraphs (9)(i), (10)(h), (11)(i), (12)(i), (13)(k), (14)(k), (15)(l), (27)(b) through (27)(d) and (33)(c) and paragraphs (16) and (17) of this Rule.

   (i) The estimate must equal the cost of final closure at the point in the facility's active life when the extent and manner of its operation would make closure the most expensive, as indicated by its closure plan (see part (7)(c)2 of this Rule); and

   (ii) The closure cost estimate must be based on the costs to the owner or operator of hiring a third party to close the facility. A third party is a party who is neither a parent nor a subsidiary of the owner or operator. (See definition of parent corporation at part (b)5 of this paragraph). The owner or operator may use costs for on-site disposal if he can demonstrate that on-site disposal capacity will exist at all times over the life of the facility.

   (iii) The closure cost estimate may not incorporate any salvage value that may be realized with the sale of hazardous wastes, or non-hazardous wastes if applicable under part (7)(d)4 of this Rule, facility structures or equipment, land, or other assets associated with the facility at the time of partial or final closure.

   (iv) The owner or operator may not incorporate a zero cost for hazardous wastes, or non-hazardous wastes if applicable under part (7)(d)4 of this Rule, that might have economic value.

2. During the active life of the facility, the owner or operator must adjust the closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with subparagraph (d) of this paragraph. For owners and operators using the financial test or corporate guarantee, the closure cost estimate must be updated for inflation within 30 days after the close of the firm's fiscal year and before submission of updated information to the Division Director as specified in subpart (g)8(v) of this paragraph. The adjustment may be made by recalculating the maximum costs of closure in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its Survey of Current Business, as specified in subparts (i) and (ii) of this part. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

   (i) The first adjustment is made by multiplying the closure cost estimate by the inflation factor. The result is the adjusted closure cost estimate.

   (ii) Subsequent adjustments are made by multiplying the latest adjusted closure cost estimate by the latest inflation factor.

3. During the active life of the facility, the owner or operator must revise the closure cost estimate no later than 30 days after the Commissioner has approved the request to modify the closure plan, if the change in the closure plan increases the cost of closure. The

revised closure cost estimate must be adjusted for inflation as specified in part 2 of this subparagraph.

4. The owner or operator must keep the following at the facility during the operating life of the facility: The latest closure cost estimate prepared in accordance with parts 1 and 3 of this subparagraph and, when this estimate has been adjusted in accordance with part 2 of this subparagraph, the latest adjusted closure cost estimate. Such cost estimates must be itemized and address all closure activities.

(d) Financial Assurance For Closure

An owner or operator of each facility must file and maintain with the Division Director financial assurance for closure of the facility in accordance with the requirements of this subparagraph.

1. The owner or operator must choose from the financial assurance mechanisms as specified in subparagraph (g) of this paragraph.

(Note: See also subparagraphs (h),(i),(j) and (k) of this paragraph.)

2. The owner or operator must file and maintain financial assurance in an amount at least equal to the current closure cost estimate.

(i) Whenever the closure cost estimate increases to an amount greater than the amount of financial assurance currently filed with the Division Director, the owner or operator must, within 60 days after the increase, file additional financial assurance at least equal to this increase.

(ii) Whenever the current closure cost estimate decreases, and upon the written request of the owner or operator, the Division Director shall, provided he or she validates the decrease, reduce the amount of financial assurance required for the facility to the amount of the current closure cost estimate. Upon such occurrence, the Division Director shall, as appropriate considering the financial assurance mechanism(s) on file, either cause to be released to the owner or operator cash or collateral equal to this reduction or allow the owner or operator to substitute for the mechanism(s) on file a new mechanism(s) in the reduced amount.

3. An owner or operator of a new facility must file the financial assurance instrument(s) before the permit can be issued or as may otherwise be directed by the Commissioner. In any case, the financial assurance must be effective before the date on which hazardous waste is first received for treatment, storage, or disposal.

4. The financial assurance must be maintained until the Commissioner or Board releases the owner or operator from the requirements of this subparagraph, as specified in this part, or until the Commissioner or Board orders forfeiture of the financial assurance as provided in part 5 of this subparagraph.

(i) Within 60 days after receiving certifications from the owner or operator and an independent registered professional engineer that final closure has been accomplished in accordance with the approved closure plan, the Division Director will notify the owner or operator in writing that he is no longer required by this subparagraph to maintain financial assurance for closure of the particular facility, unless the Commissioner or Board has reason to believe that final closure has not been in accordance with the approved closure plan. At the

time of such notification, the Division Director shall also cause to be released to the owner or operator (or issuing institution, if appropriate) the financial assurance filed to provide for such closure.

(ii) Financial assurance will normally be released in the form(s) it was submitted. However, where such release involves an amount equal to only a portion of the funds assured by a financial assurance mechanism (see subparagraphs (i) and (j) of this paragraph), the Commissioner shall, as appropriate considering the type of mechanism involved, either cause to be released to the owner or operator cash or collateral equal to that amount or allow the owner or operator to substitute for the mechanism on file a new mechanism(s) reduced by that amount.

5. The Commissioner or Board may order that any financial assurance filed by an owner or operator pursuant to this subparagraph be forfeited to the State if the Commissioner or Board determines that the owner or operator has failed to perform final closure in accordance with the approved closure plan when required to do so. Any such forfeiture action shall follow the procedures provided in subparagraphs (l) and (m) of this paragraph.

(Note: The original effective date of these regulations was October 31, 1980.)

(e) Cost Estimate for Post-closure Care [40 CFR 264.144]

1. The owner or operator of a disposal surface impoundment, disposal miscellaneous unit, land treatment unit, or landfill unit, or of a surface impoundment or waste pile required under parts (11)(i) and (12)(i) of this Rule to prepare a contingent closure and post-closure plan, must have a detailed written estimate, in current dollars, of the annual cost of post-closure monitoring and maintenance of the facility in accordance with the applicable post-closure regulations in subparagraphs (7)(h)-(k), (11)(i), (12)(i), (13)(k), (14)(k) and (27)(d) of this Rule.

(i) The post-closure cost estimate must be based on the costs to the owner or operator of hiring a third party to conduct post-closure care activities. A third party is a party who is neither a parent nor a subsidiary of the owner or operator. (See definition of “parent corporation” at part (b)5 of this paragraph.)

(ii) The post-closure cost estimate is calculated by multiplying the annual post-closure cost estimate by the number of years of post-closure care required under subparagraph (7)(h) of this Rule.

2. During the active life of the facility, the owner or operator must adjust the post-closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with subparagraph (f) of this paragraph. For owners or operators using the financial test or corporate guarantee, the post-closure cost estimate must be updated for inflation within 30 days after the close of the firm's fiscal year and before the submission of updated information to the Division Director as specified in subpart (g)8(v) of this paragraph. The adjustment may be made by recalculating the post-closure cost estimate in current dollars or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its Survey of Current Business as specified in subparts (i) and (ii) of this part. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

(i) The first adjustment is made by multiplying the post-closure cost estimate by the inflation factor. The result is the adjusted post-closure cost estimate.

(ii) Subsequent adjustments are made by multiplying the latest adjusted post-closure cost estimate by the latest inflation factor.

3. During the active life of the facility, the owner or operator must revise the post-closure cost estimate within 30 days after the Commissioner has approved the request to modify the post-closure plan, if the change in the post-closure plan increases the cost of post-closure care. The revised post-closure cost estimate must be adjusted for inflation as specified in part 2 of this subparagraph.

4. The owner or operator must keep the following at the facility during the operating life of the facility: The latest post-closure cost estimate prepared in accordance with parts 1 and 3 of this subparagraph and, when this estimate has been adjusted in accordance with part 2 of this subparagraph, the latest adjusted post-closure cost estimate.

(f) Financial Assurance for Post-closure Care

The owner or operator of a hazardous waste management unit subject to the requirements of subparagraph (c) of this paragraph must establish financial assurance for post-closure care in accordance with the approved post-closure plan for the facility and the requirements of this subparagraph.

1. The owner or operator must choose from the financial assurance mechanisms as specified in subparagraph (g) of this paragraph.

(Note: See also subparagraphs (h),(i),(j) and (k) of this paragraph.)

2. The owner or operator must file and maintain financial assurance in an amount at least equal to the current post-closure cost estimate.

(i) Whenever the current post-closure cost estimate increases to an amount greater than the amount of financial assurance currently filed with the Division Director, the owner or operator must, within 60 days after the increase, file additional financial assurance at least equal to this increase.

(ii) Whenever the current post-closure cost estimate decreases during the operating life of the facility, and upon the written request of the owner or operator, the Division Director shall, provided he validates the decrease, reduce the amount of financial assurance required for the facility to the amount of the current post-closure cost estimate. Upon such occurrence, the Division Director shall, as appropriate considering the financial assurance mechanism(s) on file, either cause to be released to the owner or operator cash or collateral equal to this reduction or allow the owner or operator to substitute for the mechanism(s) on file a new mechanism(s) in the reduced amount.

(iii) During the period of post-closure care, the Division Director may reduce the amount of financial assurance required for the facility if the owner or operator demonstrates to the Division Director that the amount currently filed exceeds the remaining cost of post-closure care. Upon such occurrence, the Division Director shall, as appropriate considering the financial assurance mechanism(s) on file, either cause to be released to the owner or operator cash or collateral

equal to this reduction or allow the owner or operator to substitute for the mechanism(s) on file a new mechanism(s) in the reduced amount.

3. An owner or operator of a facility must file the financial assurance instrument(s) before the permit can be issued or as may otherwise be directed by the Commissioner. In any case, the financial assurance must be effective before the date on which hazardous waste is first received for disposal.

4. The financial assurance must be maintained until the Commissioner releases the owner or operator from the requirements of this subparagraph, as specified in this part, or until the Commissioner orders forfeiture of the financial assurance as provided in part 5 of this subparagraph.

   (i) Within 60 days after receiving certifications from the owner or operator and an independent registered professional engineer that the post-closure care period has been completed in accordance with the approved post-closure plan, the Division Director will notify the owner or operator in writing that he is no longer required by this subparagraph to maintain financial assurance for post-closure care of that unit, unless the Commissioner or Board has reason to believe that post-closure care has not been in accordance with the approved post-closure plan. At the time of such notification, the Division Director shall also cause to be released to the owner or operator (or issuing institution, if appropriate) the financial assurance filed to provide for such post-closure care.

   (ii) Financial assurance will normally be released in the form(s) it was submitted. However, where such release involves an amount equal to only a portion of the funds assured by a financial assurance mechanism (see subparagraphs (i) and (j) of this paragraph), the Commissioner shall, as appropriate considering the type of mechanism involved, either cause to be released to the owner or operator cash or collateral equal to that amount or allow the owner or operator to substitute for the mechanism on file a new mechanism(s) reduced by that amount.

5. The Commissioner may order that any financial assurance filed by an owner or operator pursuant to this subparagraph be forfeited to the State if the Commissioner determines that the owner or operator has failed to perform post-closure care in accordance with the approved post-closure plan. Any such forfeiture action shall follow the procedures provided in subparagraphs (l) and (m) of this paragraph.

6. If the Commissioner determines that there is a reasonable probability that a facility or site will cease to operate while hazardous waste constituents remain on or in the facility or site, the Commissioner may require the posting of financial assurance or the payment of a disposal fee for the perpetual care of the facility or site. This financial assurance or fee shall be in addition to any other financial assurance or fee. The amount of the financial assurance or fee shall be based upon the estimated cost of maintaining the facility or site in perpetuity. The Commissioner may institute the requirement to pay this financial assurance or fee through a permit modification or through the issuance of an order. Such permit modification or order shall specify the manner of payment and the terms for use of the funds paid.

(Note: The original effective date of these regulations was October 31, 1980.)

(g) Mechanisms of Financial Assurance [40 CFR 264.143 and 264.145]

1. Closure and/or Post-closure Trust Fund

An owner or operator may satisfy the requirements of subparagraphs (d) and/or (f) of this paragraph by establishing a closure and/or post-closure trust fund which conforms to the requirements of this part and submitting an originally signed duplicate of the trust agreement to the Division Director. An owner or operator of a new facility must submit the originally signed duplicate of the trust agreement to the Division Director.

(i) The trustee of the trust fund must be licensed to do business as a trustee in Tennessee.

(ii) The wording of the trust agreement must be identical to the wording specified in subpart (p)1(i) of this paragraph, and the trust agreement must be accompanied by a formal certification of acknowledgment (for example, see subpart (p)1(ii) of this paragraph). Schedule A of the trust agreement must be updated within 60 days after a change in the amount of the current closure and/or post-closure care cost estimate covered by the agreement.

(iii) Payments into the trust fund must be made annually by the owner or operator over the term of the initial permit or over the remaining operating life of the facility as estimated in the closure plan, whichever period is shorter; this period is hereafter referred to as the "pay-in period." The payments into the closure and/or post-closure care trust fund must be made as follows:

(I) For a new facility, the first payment must be made before the initial receipt of hazardous waste for treatment, storage, or disposal. A receipt from the trustee for this payment must be submitted by the owner or operator to the Division Director before this initial receipt of hazardous waste. The first payment must be at least equal to the current closure cost estimate, except as provided in subparagraph (h) of this paragraph, divided by the number of years in the pay-in period. Subsequent payments must be made no later than 30 days after each anniversary date of the first payment. The amount of each subsequent payment must be determined by this formula:

$$Next\ payment = \frac{CE - CV}{Y}$$

where CE is the current closure cost estimate, CV is the current value of the trust fund, and Y is the number of years remaining in the pay-in period.

(II) If an owner or operator establishes a trust fund as specified in Rule 1200-1-11-.05(8)(g)1, and the value of that trust fund is less than the current closure and/or post-closure care cost estimate when a permit is awarded for the facility, the amount of the current closure and/or post-closure care cost estimate still to be paid into the trust fund must be paid in over the pay-in period as defined in subpart (iii) of this part. Payments must continue to be made no later than 30 days after each anniversary date of the first payment made pursuant to Rule 1200-1-11-.05. The amount of each payment must be determined by this formula:

$$Next\ payment\ =\ \frac{CE\ -\ CV}{Y}$$

where CE is the current closure and/or post-closure care cost estimate, CV is the current value of the trust fund, and Y is the number of years remaining in the pay-in period.

(iv) The owner or operator may accelerate payments into the trust fund or he may deposit the full amount of the current closure and/or post-closure care cost estimate at the time the fund is established. However, he must maintain the value of the fund at no less than the value that the fund would have if annual payments were made as specified in subpart (iii) of this part.

(v) If the owner or operator establishes a closure trust fund after having used one or more alternate mechanisms specified in this paragraph or in Rule 1200-1-11-.05(8)(g), his first payment must be in at least the amount that the fund would contain if the trust fund were established initially and annual payments made according to specifications of this part and Rule 1200-1-11-.05(8)(g)1, as applicable.

(vi) After the pay-in period is completed, whenever the current closure and/or post-closure care cost estimate changes, the owner or operator must compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after the change in the cost estimate, must either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current closure and/or post-closure care cost estimate, or obtain other financial assurance as specified in this paragraph to cover the difference.

(vii) If the value of the trust fund is greater than the total amount of the current closure and/or post-closure care cost estimate, the owner or operator may submit a written request to the Division Director for release of the amount in excess of the current closure and/or post-closure care cost estimate.

(viii) If an owner or operator substitutes other financial assurance as specified in this paragraph for all or part of the trust fund, he may submit a written request to the Division Director for release of the amount in excess of the current closure and/or post-closure care cost estimate covered by the trust fund.

(ix) Within 60 days after receiving a request from the owner or operator for release of funds as specified in subparts (vii) or (viii) of this part, the Commissioner will instruct the trustee to release to the owner or operator such funds as the Commissioner specifies in writing.

(x) After beginning partial or final closure and/or post-closure care, an owner or operator or another person authorized to conduct partial or final closure and/or post-closure care may request reimbursements for partial or final closure and/or post-closure care expenditures by submitting itemized bills to the Division Director. The owner or operator may request reimbursements for partial closure and/or post-closure care only if sufficient funds are remaining in the trust fund to cover the maximum costs of closing the facility over its remaining operating life and/or remaining costs of post-closure care of the facility. Within 60 days after receiving bills for partial or final closure and/or post-closure care activities,

the Commissioner will instruct the trustee to make reimbursements in those amounts as the Commissioner specifies in writing, if the Division Director determines that the partial or final closure and/or post-closure care expenditures are in accordance with the approved closure and/or post-closure care plan, or otherwise justified. If the Commissioner has reason to believe that the maximum cost of closure and/or post-closure care over the remaining life of the facility and/or post-closure care period will be significantly greater than the value of the trust fund, he may withhold reimbursements of such amounts as he deems prudent until he determines, in accordance with part (d)4 and/or part (f)4 of this paragraph that the owner or operator is no longer required to maintain financial assurance for final closure and/or post-closure care of the facility. If the Commissioner does not instruct the trustee to make such reimbursements, he will provide the owner or operator with a detailed written statement of reasons.

(xi) The Commissioner will agree to termination of the trust when:

(I) An owner or operator substitutes alternate financial assurance as specified in this paragraph; or

(II) The Commissioner releases the owner or operator from the requirements of subparagraphs (d) and/or (f) of this paragraph in accordance with parts (d)4 and/or (f)4 of this paragraph.

2. Surety Bond Guaranteeing Payment Into a Closure and/or Post-closure Trust Fund

An owner or operator may satisfy the requirements of subparagraphs (d) and/or (f) of this paragraph by obtaining a surety bond which conforms to the requirements of this part and submitting the bond to the Division Director. An owner or operator of a new facility must submit the bond to the Division Director.

(i) The surety company issuing the bond must be licensed to do business as a surety in Tennessee and must be among those listed as acceptable sureties by the Commissioner.

(ii) The wording of the surety bond must be identical to the wording specified in part (p)2 of this paragraph.

(iii) The owner or operator who uses a surety bond to satisfy the requirements of subparagraphs (d) and/or (f) of this paragraph must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the Commissioner. This standby trust fund must meet the requirements specified in part 1 of this subparagraph, except that:

(I) An originally signed duplicate of the trust agreement must be submitted to the Division Director with the surety bond; and

(II) Until the standby trust fund is funded pursuant to the requirements of this paragraph, the following are not required by these regulations:

I. Payments into the trust fund as specified in part 1 of this subparagraph;

II. Updating of Schedule A of the trust agreement (see part (p)1 of this paragraph) to show current closure and/or post-closure care cost estimates;

III. Annual valuations as required by the trust agreement; and

IV. Notices of nonpayment as required by the trust agreement.

(iv) The bond must guarantee that the owner or operator will:

(I) Fund the standby trust fund in an amount equal to the penal sum of the bond before the beginning of final closure and/or post-closure care of the facility; or

(II) Fund the standby trust fund in an amount equal to the penal sum within 15 days after an administrative order to begin final closure and/or post-closure care issued by the Commissioner becomes final, or within 15 days after an order to begin final closure and/or post-closure care is issued by the Commissioner, the Board, or a court of competent jurisdiction; or

(III) Provide alternate financial assurance as specified in this paragraph, and obtain the Division Director's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Division Director of a notice of cancellation of the bond from the surety.

(v) Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

(vi) The penal sum of the bond must be in an amount at least equal to the current closure and/or post-closure care cost estimate, except as provided in subparagraph (h) of this paragraph.

(vii) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Division Director. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Division Director, as evidence by the return receipts.

(viii) The owner or operator may cancel the bond if the Commissioner has given prior written consent based on his receipt of evidence of alternate financial assurance as specified in this paragraph.

3. Surety Bond Guaranteeing Performance of Closure and/or Post-closure

An owner or operator may satisfy the requirements of subparagraphs (d) and/or (f) of this paragraph by obtaining a surety bond which conforms to the requirements of this part and submitting the bond to the Division Director. An owner or operator of a new facility must submit the bond to the Division Director.

(i) The surety company issuing the bond must be licensed to do business as a surety in Tennessee and must be among those listed as acceptable sureties by the Commissioner.

(ii) The wording of the surety bond must be identical to the wording specified in part (p)3 of this paragraph.

(iii) The bond must guarantee that the owner or operator will:

(I) Perform final closure in accordance with the closure plan and other requirements of the permit for the facility whenever required to do so and/or perform post-closure care in accordance with the post-closure care plan and other requirements of the permit for the facility; or

(II) Provide alternate financial assurance as specified in this section, and obtain the Division Director's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Division Director of a notice of cancellation of the bond from the surety.

(iv) Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond. Following a final determination by the Commissioner that the owner or operator has failed to so perform, under the terms of the bond the surety will perform final closure and/or post-closure care as guaranteed by the bond or will forfeit the amount of the penal sum, as provided in parts (d)5 and or (f)5 of this paragraph as directed by the Commissioner.

(v) The penal sum of the bond must be in an amount at least equal to the current closure cost estimate.

(vi) Whenever the current closure cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current closure cost estimate and submit evidence of such increase to the Division Director, or obtain other financial assurance as specified in this paragraph. Whenever the current closure cost estimate decreases, the penal sum may be reduced to the amount of the current closure cost estimate following written approval by the Division Director.

(vii) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Division Director. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Division Director, as evidenced by the return receipts.

(viii) The owner or operator may cancel the bond if the Commissioner has given prior written consent. The Commissioner will provide such written consent when:

(I) An owner or operator substitutes alternate financial assurance as specified in this paragraph; or

(II) The Commissioner releases the owner or operator from the requirements of this paragraph in accordance with parts (d)4 and/or (f) of this paragraph.

(ix) The surety will not be liable for deficiencies in the performance of closure by the owner or operator after the Commissioner releases the owner or operator from the requirements of this paragraph in accordance with parts (d)4 and/or (f)4 of this paragraph.

4. Closure and/or Post-closure Letter of Credit

An owner or operator may satisfy the requirements of subparagraphs (d) and/or (f) of this paragraph by obtaining an irrevocable standby letter of credit which conforms to the requirements of this part and submitting the letter to the Division Director. An owner or operator of a new facility must submit the letter of credit to the Division Director.

(i) The issuing institution must be an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a Federal or State agency.

(ii) The wording of the letter of credit must be identical to the wording specified in part (p)4 of this paragraph.

(iii) The letter of credit must be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the following information: the Installation Identification Number, name, and address of the facility, and the amount of funds assured for closure and/or post-closure care of the facility by the letter of credit.

(iv) The letter of credit must be irrevocable and issued for a period of at least 1 year. The letter of credit must provide that the expiration date will be automatically extended for a period of at least 1 year unless, at least 120 days before the current expiration date, the issuing institution notifies both the owner or operator and the Division Director by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days will begin on the date when both the owner or operator and the Division Director have received the notice, as evidenced by the return receipts.

(v) The Division Director may draw on the Letter of Credit upon forfeiture as provided in parts (d)5 and (f)5 of this paragraph. If the owner or operator does not establish alternate financial assurance as specified in this paragraph and obtain written approval of such alternate assurance from the Division Director within 90 days after receipt by both the owner or operator and the Division Director of a notice from issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the Division Director will also draw on the letter of credit. The Division Director may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last 30 days of any such extension the Division Director will draw on the letter of credit if the owner or operator has failed to provide alternate financial assurance as specified in this paragraph and obtain written approval of such assurance from the Division Director.

(vi) The Commissioner will return the letter of credit to the issuing institution for termination when:

(I) An owner or operator substitutes alternate financial assurance as specified in this paragraph; or

(II) The Commissioner releases the owner or operator from the requirements of this paragraph in accordance with parts (d)4 and/or (f)4 of this paragraph.

5. Closure and/or Post-closure Insurance

An owner or operator may satisfy the requirements of subparagraphs (d) and/or (f) of this paragraph by obtaining closure and/or post-closure care insurance which conforms to the requirements of this part and submitting a certificate of such insurance to the Division Director. An owner or operator of a new facility must submit the certificate of insurance to the Division Director.

(i) The insurer must be licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in the State of Tennessee and have an A.M. best rating at least A or A- or have special approval from the Commissioner. An insurer that is a “captive insurance company”, as that term is used in T.C.A. Sections 56-13-106 through 56-13-133, may not be utilized unless the Commissioner determines that such captive insurance company offers coverage that is equivalent in protection to other insurance companies or other allowable financial assurance mechanisms.

(ii) The insurance policy must be accompanied by a certificate of insurance whose wording is identical to the wording specified in part (p)5 of this paragraph. The wording of the policy itself is subject to the review and approval of the Commissioner prior to acceptance as a financial assurance mechanism.

(iii) The insurance policy must be issued for a face amount at least equal to the current closure and/or post-closure care cost estimate, except as provided in subparagraph (h) of this paragraph. The term "face amount" means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will not change the face amount, although the insurer's future liability will be lowered by the amount of the payments.

(iv) The insurance policy must guarantee that funds will be available to close the facility whenever final closure occurs and/or to provide post-closure care of the facility whenever the post-closure period begins. The policy must also guarantee that once final closure and/or the post-closure care period begins, the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the Division Director, to such party or parties as the Division Director specifies.

(v) Under an insurance policy which guarantees the availability of funds for final closure and/or post-closure care, after beginning partial or final closure, an owner or operator or any other person authorized to perform closure and/or post-closure care may request reimbursement for closure and/or post-closure care expenditures by submitting itemized bills to the Division Director. The owner or operator may request reimbursements for partial closure only if the remaining value of the policy is sufficient to cover the maximum costs of closing the facility over its remaining operating life. Within 60 days after receiving bills for closure and/or post-closure activities, the Division Director

will instruct the insurer to make reimbursements in such amounts as the Division Director specifies in writing, if the Division Director determines that the partial or final closure and/or post-closure expenditures are in accordance with the approved closure and/or post-closure plan or otherwise justified. If the Division Director has reason to believe that the maximum cost of closure and/or post-closure over the remaining life of the facility will be significantly greater than the face amount of the policy, he may withhold reimbursement of such amounts as he deems prudent until the owner or operator is released from he financial assurance requirement as provided in part (d)4 and/or (f)4 of this paragraph. If the Division Director does not instruct the insurer to make such reimbursements, he will provide the owner or operator with a detailed written statement of reasons.

(vi) Upon forfeiture of financial assurance as provided in parts (d)5 and (f)5 of this paragraph, the Division Director will direct the insurer to pay the full face amount to the State.

(vii) The owner or operator must maintain the policy in full force and effect until the Division Director, Commissioner, or Board releases the financial assurance mechanism as provided in this paragraph. Failure to pay the premium, without substitution of alternate financial assurance as specified in this paragraph, will constitute a significant violation of these regulations, warranting such remedy as the Commissioner deems necessary. Such violation will be deemed to begin upon receipt by the Division Director of a notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.

(viii) Each policy must contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided such consent is not unreasonably refused.

(ix) The policy must provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy must, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate, or fail to renew the policy by sending notice by certified mail to the owner or operator and the Division Director. Cancellation, termination, or failure to renew may not occur, however, during the 120 days beginning with the date of receipt of the notice by both the Division Director and the owner or operator, as evidenced by the return receipts. Cancellation, termination, or failure to renew may not occur and the policy will remain in full force and effect in the event that on or before the date of expiration:

(I) The Division Director deems the facility abandoned; or

(II) The permit is terminated or revoked or a new permit is denied; or

(III) Closure is ordered by the Commissioner, the Board, or a court of competent jurisdiction; or

(IV) The owner or operator is named as debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code; or

(V) The premium due is paid.

(x) The Commissioner will give written consent to the owner or operator that he may terminate the insurance policy when:

(I) An owner or operator substitutes alternate financial assurance as specified in this paragraph; or

(II) The Commissioner releases the owner or operator from the requirements of this paragraph in accordance with parts (d)4 and/or (f)4 of this paragraph.

6. Personal Bond Supported by Securities

An owner or operator may satisfy the requirements of subparagraphs (d) and/or (f) of this paragraph by filing his personal performance guarantee accompanied by collateral in the form of securities. He must guarantee to perform final closure in accordance with the closure plan and other requirements of the permit for the facility whenever required to do so, and/or guarantee to perform post-closure care in accordance with the post-closure plan and other requirements of the permit for the facility. The wording of the personal bond supported by securities must be identical to the wording specified in part (p)15 of this paragraph. The securities supporting this guarantee must be fully registered as to principal and interest in such manner as to identify the State and the Department as holder of such collateral and to also identify that person filing such collateral. These securities must have a current market value at least adequate to provide the necessary financial assurance, and must be included among the following types:

(i) Negotiable certificates of deposit assigned irrevocably to the State.

(I) Such certificates of deposit must be automatically renewable and must be assigned to the State in writing and recorded as such in the records of the financial institution issuing such certificate.

(II) Such certificates of deposit must also include a statement signed by an officer of the issuing financial institution which waives all rights of lien which the institution has or might have against the certificate.

(ii) Negotiable United States Treasury securities assigned irrevocably to the State.

(iii) Negotiable general obligation municipal or corporate bonds which have at least an "A" rating by Moody's and/or Standard and Poor's rating services and which are assigned irrevocably to the State.

7. Personal Bond Supported by Cash

An owner or operator may satisfy the requirements of subparagraphs (d) and/or (f) of this paragraph by filing his personal performance guarantee accompanied by cash in an amount at least adequate to provide the necessary financial assurance. He must guarantee to perform final closure in accordance with the closure plan and other requirements of the permit for the facility whenever required to do so, and/or guarantee to perform post-closure care in accordance with the post-closure plan and other requirements of the permit for the facility.

8. Financial Test and Corporate Guarantee for Closure and/or Post-closure Care

(i) An owner or operator may satisfy the requirements of subparagraph (d) and/or (f) of this paragraph by demonstrating that he passes a financial test as specified in this part. The same document (with appropriate wording modifications) may be used by a company, with prior approval by the Commissioner, to demonstrate Financial Assurance for a solid waste unit and a hazardous waste unit, both of which are owned/operated by the company. To pass this test the owner or operator must meet the criteria of either item (I) or (II) of this subpart as follows:

(I) The owner or operator must have:

I. Two of the following three ratios: a ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and

II. Net working capital and tangible net worth each at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates; and

III. Tangible net worth of at least $10 million; and

IV. Assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.

(II) The owner or operator must have:

I. A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's; and

II. Tangible net worth at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates; and

III. Tangible net worth of at least $10 million; and

IV. Assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.

(ii) The phrase "current closure and post-closure cost estimates" as used in subpart (i) of this part refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer (part (p)6 of this paragraph). The phrase "current plugging and abandonment cost estimates" as used in subpart (i) of this part refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer (See 40 CFR 144.70(f), as that Federal regulation exists on the

effective date of this rulemaking, or equivalent State requirement under Rule Chapter 1200-4-6).

(iii) To demonstrate that he meets this test, the owner or operator must submit the following items to the Division Director:

(I) A letter signed by the owner's or operator's chief financial officer and worded as specified in part (p)6 of this paragraph; and

(II) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and

(III) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

I. He has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

II. In connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.

(iv) An owner or operator of a new facility must submit the items specified in subpart (iii) of this part to the Division Director at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal.

(v) After the initial submission of items specified in subpart (iii) of this part, the owner or operator must send updated information to the Division Director within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in subpart (iii) of this part.

(vi) If the owner or operator no longer meets the requirements of subpart (i) of this part, he must send notice to the Division Director of intent to establish alternate financial assurance as specified in this paragraph. The notice must be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements. The owner or operator must provide the alternate financial assurance within 120 days after the end of such fiscal year.

(vii) The Division Director may, based on a reasonable belief that the owner or operator may no longer meet the requirements of subpart (i) of this part, require reports of financial condition at any time from the owner or operator in addition to those specified in subpart (iii) of this part. If the Division Director finds, on the basis of such reports or other information, that the owner or operator no longer meets the requirements of subpart (i) of this part, the owner or operator must provide alternate financial assurance as specified in this paragraph within 30 days after notification of such a finding.

(viii) The Division Director may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his

report on examination of the owner's or operator's financial statements (see item (iii)(II) of this part). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The Division Director will evaluate other qualifications on an individual basis. The owner or operator must provide alternate financial assurance as specified in this paragraph within 30 days after notification of the disallowance.

(ix) The owner or operator is no longer required to submit the items specified in subpart (iii) of this part when:

(I) An owner or operator substitutes alternate financial assurance as specified in this paragraph; or

(II) The Commissioner releases the owner or operator from the requirements of this paragraph in accordance with parts (d)4 and/or (f)4 of this paragraph.

(x) An owner or operator may meet the requirements of subparagraph (d) and/or (f) of this paragraph by obtaining a written guarantee, hereafter referred to as “corporate guarantee”. The guarantor must be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the owner or operator. The guarantor must meet the requirements for owners or operators in subparts (i) through (viii) of this part and must comply with the terms of the corporate guarantee. The wording of the corporate guarantee must be identical to the wording specified in part (p)8 of this paragraph. The certified copy of the corporate guarantee must accompany the items sent to the Division Director as specified in subpart (iii) of this part. One of these items must be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, the letter must describe the value received in consideration of the corporate guarantee. If the guarantor is a firm with a "substantial business relationship" with the owner or operator, this letter must describe this "substantial business relationship" and the value received in consideration of the corporate guarantee. The terms of the corporate guarantee must provide that:

(I) If the owner or operator fails to perform final closure and/or post-closure of a facility covered by the corporate guarantee in accordance with the closure plan and other permit requirements whenever required to do so, the guarantor will do so or establish a trust fund as specified in part 1 of this subparagraph in the name of the owner or operator or forfeit to the State monies in an amount equal to the current closure and/or post-closure cost estimate for the facility as provided in part (d)5 and/or (f)5 of this paragraph as directed by the Commissioner.

(II) The corporate guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the Division Director. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Division Director, as evidenced by the return receipts.

(III) If the owner or operator fails to provide alternate financial assurance as specified in this paragraph and obtain the written approval of such

alternate assurance from the Division Director within 90 days after receipt by both the owner or operator and the Division Director of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor will provide such alternative financial assurance in the name of the owner or operator.

(h) Use of Multiple Financial Mechanisms

An owner or operator may satisfy the requirements of subparagraphs (d) and/or (f) of this paragraph by establishing more than one financial mechanism per facility. These mechanisms are limited to trust funds, surety bonds guaranteeing payment into a trust fund, letters of credit, insurance, and personal bonds supported by securities or cash. The mechanisms must be as specified in parts 1,2,4,5,6 and 7, respectively, of subparagraph (g) of this paragraph, except that it is the combination of mechanisms, rather than the single mechanism, which must provide financial assurance for an amount at least equal to the current closure and/or post-closure cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, he may use the trust fund as the standby trust fund for the other mechanisms. A single standby trust fund may be established for two or more mechanisms. The Commissioner may use any or all of the mechanisms to provide for closure and/or post-closure care of the facility.

(i) Use of a Financial Mechanism for Multiple Facilities

An owner or operator may use a financial assurance mechanism specified in this subparagraph (g) of this paragraph to meet the requirements of subparagraphs (d) and/or (f) of this paragraph for more than one facility he owns and operates in Tennessee. Evidence of financial assurance submitted to the Division Director must include a list showing, for each facility, the Installation Identification Number, name, address, and the amount of funds for closure and/or post-closure care assured by the mechanism. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each facility. In a financial assurance forfeiture action taken under parts (d)5 and/or (f)5 of this paragraph for closure and/or post-closure care of any of the facilities covered by the mechanism, the Commissioner may order forfeiture of only the amount of funds designated for that facility unless the owner or operator agrees to the use of additional funds available under the mechanism.

(j) Use of a Mechanism for Financial Assurance of Both Closure and Post-closure Care [40 CFR 264.146]

An owner or operator may satisfy the requirements for financial assurance for both closure and post-closure care for one or more facilities by using a mechanism from subparagraph (g) of this paragraph which meets the requirements of both subparagraphs (d) and (f) of this paragraph. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for financial assurance for closure and for post-closure care.

(k) Substituting Alternate Financial Assurance

In meeting the requirements of subparagraphs (d) or (f) of this paragraph, an owner or operator may substitute alternate financial assurance meeting the requirements of this paragraph for the financial assurance already filed with the Division Director. However, the existing financial assurance shall not be released by the Commissioner until the substitute financial assurance has been received and approved by him or her.

(l) Procedures for Forfeiture of Financial Assurance

1. Upon his or her determination that the owner or operator has failed to perform final closure in accordance with the approved closure plan when required to do so, or has failed to perform post-closure care in accordance with the approved post-closure plan, the Division Director shall cause a notice of non-compliance to be served upon the owner or operator. Such notice shall be hand delivered or forwarded by certified mail. The notice of non-compliance shall specify in what respects the owner or operator has failed to perform as required, and shall establish a schedule of compliance leading to compliance with the plan and other permit requirements as soon as possible.

2. If the Division Director determines that the owner or operator has failed to perform as specified in the notice of non-compliance, or as specified in any subsequent compliance agreement which may have been reached by the owner or operator and the Division Director, the Division Director shall cause a notice of show cause meeting to be served upon the owner or operator. Such notice shall be signed by the Division Director and either hand-delivered or forwarded by certified mail to the owner or operator. The notice of show cause meeting shall establish the date, time, and location of a meeting scheduled to provide the owner or operator with the opportunity to show cause why the Division Director should not pursue forfeiture of the financial assurance filed to guarantee such performance.

3. If no mutual compliance agreement is reached at the show cause meeting, or upon the Division Director's determination that the owner or operator has failed to perform as specified in such agreement that was reached, the Division Director shall request the Commissioner to order forfeiture of the financial assurance filed to guarantee such performance.

4. The Commissioner shall order forfeiture of the financial assurance upon his or her validation of the Division Director's determinations and upon his or her determination that the procedures of this subparagraph have been followed. The Commissioner may however, at his or her discretion, provide opportunity for the owner or operator to be heard before issuing such order. Upon issuance, a copy of the order shall be hand delivered or forwarded by certified mail to the owner or operator. Any such order issued by the Commissioner shall become effective 30 days after receipt by the owner or operator unless it is appealed to the Board as provided in T.C.A. Section 68-212-113 of the Act.

5. If necessary, upon the effective date of the order of forfeiture, the Commissioner shall give notice to the State Attorney General who shall collect the forfeiture.

6. All forfeited funds shall be deposited in a special account within the Tennessee Environmental Protection Fund for use by the Commissioner as set forth in T.C.A. Sections 68-212-108(c)(6) of the Act and 68-203-101 et seq.

(m) Management of Collateral Filed With the State

The Division Director shall obtain possession of and deposit with the Treasurer of the State of Tennessee all collateral filed under this paragraph, in accordance with Tennessee Code Annotated Section 8-5-110. At the owner or operator's request, the State Treasurer shall release to the operator any interest income from deposited securities as the same becomes due and payable.

(n) Liability Requirements [40 CFR 264.147]

1. Coverage for Sudden Accidental Occurrences

An owner or operator of a hazardous waste treatment, storage, or disposal facility, or a group of such facilities, must demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator must have and maintain liability coverage for sudden accidental occurrences in the amount of at least $1 million per occurrence with an annual aggregate of at least $2 million, exclusive of legal defense costs. This liability coverage may be demonstrated as specified in subparts (i),(ii),(iii),(iv),(v) or (vi) of this part:

(i) An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in this subpart.

(I) Each insurance policy must be amended by attachment of the Hazardous Waste Facility Liability Endorsement or evidenced by a Certificate of Liability Insurance. The wording of the endorsement must be identical to the wording specified in part (p)9 of this paragraph. The wording of the certificate of insurance must be identical to the wording specified in part (p)10 of this paragraph. The owner or operator must submit a signed duplicate original of the endorsement or the certificate of insurance to the Division Director. If requested by the Division Director, the owner or operator must provide a signed duplicate original of the insurance policy. An owner or operator of a new facility must submit the signed duplicate original of the Hazardous Waste Facility Liability Endorsement or the Certificate of Liability Insurance to the Division Director at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The insurance must be effective before this initial receipt of hazardous waste.

(II) Each insurance policy must be issued by an insurer which, at a minimum, is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in Tennessee. An insurer that is a “captive insurance company”, as that term is used in T.C.A. Sections 56-13-106 through 56-13-133, may not be utilized unless the Commissioner determines that such captive insurance company offers coverage that is equivalent in protection to other insurance companies or other allowable financial assurance mechanisms.

(ii) An owner or operator may meet the requirements of this subparagraph by passing a financial test or using the guarantee for liability coverage as specified in parts 6 and 7 of this subparagraph. The same document (with appropriate wording modifications) may be used by a company, with prior approval by the Commissioner, to demonstrate liability coverage and closure/post-closure financial assurance for a solid waste unit (as appropriate) and a hazardous waste unit, both of which are owned/operated by the company.

(iii) An owner or operator may meet the requirements of this subparagraph by obtaining a letter of credit for liability coverage as specified in part 8 of this subparagraph.

(iv) An owner or operator may meet the requirements of this subparagraph by obtaining a surety bond for liability coverage as specified in part 9 of this subparagraph.

(v) An owner or operator may meet the requirements of this subparagraph by obtaining a trust fund for liability coverage as specified in part 10 of this subparagraph.

(vi) An owner or operator may demonstrate the required liability coverage through the use of combinations of insurance, financial test, guarantee, letter of credit, surety bond, and trust fund, except that the owner or operator may not combine a financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated must total at least the minimum amounts required by this subparagraph. If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under this paragraph, the owner or operator shall specify at least one such assurance as "primary" coverage and shall specify other assurance as "excess" coverage.

(vii) An owner or operator shall notify the Division Director in writing within 30 days whenever:

(I) A claim results in a reduction in the amount of financial assurance for liability coverage provided by a financial instrument authorized in subparts (i) through (vi) of this part; or

(II) A Certification of Valid Claim for bodily injury or property damages caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is entered between the owner or operator and third-party claimant for liability coverage under subparts (i) through (vi) of this part; or

(III) A final court order establishing a judgment for bodily injury or property damage caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is issued against the owner or operator or an instrument that is providing financial assurance for liability coverage under subparts (i) through (vi) of this part.

2. Coverage for Nonsudden Accidental Occurrences

An owner or operator of a surface impoundment, landfill, land treatment facility, or disposal miscellaneous unit that is used to manage hazardous waste, or a group of such facilities, must demonstrate financial responsibility for bodily injury and property damage to third parties caused by nonsudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator must have and maintain liability coverage for nonsudden accidental occurrences in the amount of at least $3 million per occurrence with an annual aggregate of at least $6 million, exclusive of legal defense costs. An owner or operator who must meet the requirements of this subparagraph may combine the required per-occurrence coverage levels for sudden and nonsudden accidental occurrences into a single per-occurrence level, and combine the required annual aggregate coverage levels for sudden and nonsudden accidental

occurrences into a single annual aggregate level. Owners or operators who combine coverage levels for sudden and nonsudden accidental occurrences must maintain liability coverage in the amount of at least $4 million per occurrence and $8 million annual aggregate. This liability coverage may be demonstrated as specified in subparts (i),(ii),(iii),(iv),(v) or (vi) of this part:

(i) An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in this subpart.

(I) Each insurance policy must be amended by attachment of the Hazardous Waste Facility Liability Endorsement or evidenced by a Certificate of Liability Insurance. The wording of the endorsement must be identical to the wording specified in part (p)9 of this paragraph. The wording of the certificate of insurance must be identical to the wording specified in part (p)10 of this paragraph. The owner or operator must submit a signed duplicate original of the endorsement or the certificate of insurance to the Division Director. If requested by the Division Director, the owner or operator must provide a signed duplicate original of the insurance policy. An owner or operator of a new facility must submit the signed duplicate original of the Hazardous Waste Facility Liability Endorsement or the Certificate of Liability Insurance to the Division Director at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The insurance must be effective before this initial receipt of hazardous waste.

(II) Each insurance policy must be issued by an insurer which, at a minimum, is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in Tennessee. An insurer that is a “captive insurance company”, as that term is used in T.C.A. Sections 56-13-106 through 56-13-133, may not be utilized unless the Commissioner determines that such captive insurance company offers coverage that is equivalent in protection to other insurance companies or other allowable financial assurance mechanisms.

(ii) An owner or operator may meet the requirements of this subparagraph by passing a financial test or using the guarantee for liability coverage as specified in parts 6 and 7 of this subparagraph. The same document (with appropriate wording modifications) may be used by a company, with prior approval by the Commissioner, to demonstrate liability coverage and closure/post-closure financial assurance for a solid waste unit (as appropriate) and a hazardous waste unit, both of which are owned/operated by the company.

(iii) An owner or operator may meet the requirements of this subparagraph by obtaining a letter of credit for liability coverage as specified in part 8 of this subparagraph.

(iv) An owner or operator may meet the requirements of this subparagraph by obtaining a surety bond for liability coverage as specified in part 9 of this subparagraph.

(v) An owner or operator may meet the requirements of this subparagraph by obtaining a trust fund for liability coverage as specified in part 10 of this subparagraph.

(vi) An owner or operator may demonstrate the required liability coverage through the use of combinations of insurance, financial test, guarantee, letter of credit, surety bond, and trust fund, except that the owner or operator may not combine a financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated must total at least the minimum amount required by this subparagraph. If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under this part, the owner or operator shall specify at least one such assurance as "primary" coverage and shall specify other assurance as "excess" coverage.

(vii) An owner or operator shall notify the Division Director in writing within 30 days whenever:

(I) A Claim results in a reduction in the amount of financial assurance for liability coverage provided by a financial instrument authorized in subparts (i) through (vi) of this part; or

(II) A Certification of Valid Claim for bodily injury or property damages caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is entered between the owner or operator and third-party claimant for liability coverage under subparts (i) through (vi) of this part; or

(III) A final court order establishing a judgment for bodily injury or property damage caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is issued against the owner or operator or an instrument that is providing financial assurance for liability coverage under subparts (i) through (vi) of this part.

3. Request for Variance

If an owner or operator can demonstrate to the satisfaction of the Commissioner that the levels of financial responsibility required by parts 1 or 2 of this subparagraph are not consistent with the degree and duration of risk associated with treatment, storage, or disposal at the facility or group of facilities, the owner or operator may obtain a variance from the Commissioner. The request for a variance must be submitted to the Commissioner as part of the application under Rule 1200-1-11-.07(5) for a facility that does not have a permit, or pursuant to the procedures for permit modification under Rule 1200-1-11-.07(9)(c) for a facility that has a permit. If granted, the variance will take the form of an adjusted level of required liability coverage, such level to be based on the Commissioner's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. The Commissioner may require an owner or operator who requests a variance to provide such technical and engineering information as is deemed necessary by the Commissioner to determine a level of financial responsibility other than that required by part 1 or 2 of this

subparagraph. Any request for a variance for a permitted facility will be treated as a request for a permit modification under Rule 1200-1-11-.07(9)(c)2 and 3(xiii).

4. Adjustments by the Commissioner

If the Commissioner determines that the levels of financial responsibility required by part 1 or 2 of this subparagraph are not consistent with the degree and duration of risk associated with treatment, storage, or disposal at the facility or group of facilities, the Commissioner may adjust the level of financial responsibility required under part 1 or 2 of this subparagraph as may be necessary to protect human health and the environment. This adjusted level will be based on the Commissioner's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. In addition, if the Commissioner determines that there is a significant risk to human health and the environment from nonsudden accidental occurrences resulting from the operations of a facility that is not a surface impoundment, landfill, or land treatment facility, he may require that an owner or operator of the facility comply with part 2 of this subparagraph. An owner or operator must furnish to the Division Director, within a reasonable time, any information which the Commissioner requests to determine whether cause exists for such adjustments of level or type of coverage. Any adjustment of the level or type of coverage for a facility that has a permit will be treated as a permit modification under Rule 1200-1-11-.07(9)(c)2 and 3(xiii).

5. Period of Coverage

Within 60 days after receiving certifications from the owner or operator and an independent registered professional engineer that final closure has been completed in accordance with the approved closure plan, the Division Director will notify the owner or operator in writing that he is no longer required by this section to maintain liability coverage for that facility, unless the Commissioner or Board has reason to believe that closure has not been in accordance with the approved closure plan. The Division Director shall provide the owner or operator a detailed written statement of any such reason to believe that closure has not been in accordance with the approved closure plan.

6. Financial Test for Liability Coverage

(i) An owner or operator may satisfy the requirements of this subparagraph by demonstrating that he passes a financial test as specified in this part. To pass this test the owner or operator must meet the criteria of items (I) or (II) of this subpart:

(I) The owner or operator must have:

I. Net working capital and tangible net worth each at least six times the amount of liability coverage to be demonstrated by this test; and

II. Tangible net worth of at least $10 million; and

III. Assets in the United States amounting to either:

A. At least 90 percent of his total assets; or

B. At least six times the amount of liability coverage to be demonstrated by this test.

(II) The owner or operator must have:

I. A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's, or Aaa, Aa, A, or Baa as issued by Moody's; and

II. Tangible net worth of at least $10 million; and

III. Tangible net worth at least six times the amount of liability coverage to be demonstrated by this test; and

IV. Assets in the United States amounting to either:

A. At least 90 percent of his total assets; or

B. At least six times the amount of liability coverage to be demonstrated by this test.

(ii) The phrase "amount of liability coverage" as used in subpart (i) of this part refers to the annual aggregate amounts for which coverage is required under parts 1 and 2 of this subparagraph.

(iii) To demonstrate that he meets this test, the owner or operator must submit the following three items to the Division Director:

(I) A letter signed by the owner's or operator's chief financial officer and worded as specified in part (p)7 of this paragraph. If an owner or operator is using the financial test to demonstrate both assurance for closure or post-closure care, as specified by subparagraphs (d) and (f) and part (g)8 of this paragraph and Rule 1200-1-11-.05(8)(d) and (f) and (g)7, and liability coverage, he must submit the letter specified in part (p)7 of this paragraph to cover both forms of financial responsibility; a separate letter as specified in part (p)6 of this paragraph is not required.

(II) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year.

(III) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

I. He has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

II. In connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.

(iv) An owner or operator of a new facility must submit the items specified in subpart (iii) of this part to the Division Director at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal.

(v) After the initial submission of items specified in subpart (iii) of this part, the owner or operator must send updated information to the Division Director within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in subpart (iii) of this part.

(vi) If the owner or operator no longer meets the requirements of subpart (i) of this part, he must obtain insurance, a letter of credit, a surety bond, a trust fund, or a guarantee for the entire amount of required liability coverage as specified in this subparagraph. Evidence of liability coverage must be submitted to the Division Director within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the test requirements.

(vii) The Commissioner may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements (see item (iii)(II) of this part). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The Commissioner will evaluate other qualifications on an individual basis. The owner or operator must provide evidence of insurance for the entire amount of required liability coverage as specified in this subparagraph within 30 days after notification of disallowance.

7. Guarantee for Liability Coverage

(i) Subject to subpart (ii) of this part, an owner or operator may meet the requirements of this subparagraph by obtaining a written guarantee, hereinafter referred to as "guarantee." The guarantor must be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the owner or operator. The guarantor must meet the requirements for owners or operators in subparts 6(i) through 6(vi) of this subparagraph. The wording of the guarantee must be identical to the wording specified in subparts (p)8(ii) of this paragraph. A certified copy of the guarantee must accompany the items sent to the Division Director as specified in subpart 6(iii) of this subparagraph. One of these items must be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, this letter must describe the value received in consideration of the guarantee. If the guarantor is a firm with a "substantial business relationship" with the owner or operator, this letter must describe this "substantial business relationship" and the value received in consideration of the guarantee.

(I) If the owner or operator fails to satisfy a judgment based on a determination of liability for bodily injury or property damage to third parties caused by sudden or nonsudden accidental occurrences (or both as the case may be), arising from the operation of facilities covered by this corporate guarantee, or fails to pay an amount agreed to in settlement of claims arising from or alleged to arise from such injury or damage, the guarantor will do so up to the limits of coverage.

(II) (Reserved)

(ii) (I) In the case of corporations, other than a Tennessee Corporation, incorporated in the United States, a guarantee may be used to satisfy the requirements of this subparagraph only if the Attorneys General or Insurance Commissioners of I. the State in which the guarantor is incorporated, and II. each State in which a facility covered by the guarantee is located have submitted a written statement to the Division Director that a guarantee executed as described in this part and subpart (p)8(ii) of this paragraph is a legally valid and enforceable obligation in that State.

(II) In the case of corporations incorporated outside the United States, a guarantee may be used to satisfy the requirements of this subparagraph only if:

I. The non-U.S. corporation has identified a registered agent for service of process in each State in which a facility covered by the guarantee is located and in the State in which it has its principal place of business, and

II. The Attorney General or Insurance Commissioner of each State in which a facility covered by the guarantee is located and the State in which the guarantor corporation has its principal place of business, has submitted a written statement to Division Director that a guarantee executed as described in this part and subpart (p)8(ii) of this paragraph is a legally valid and enforceable obligation in that State.

8. Letter of Credit for Liability Coverage

(i) An owner or operator may satisfy the requirements of this subparagraph by obtaining an irrevocable standby letter of credit that conforms to the requirements of this subparagraph and submitting a copy of the letter of credit to the Division Director.

(ii) The financial institution issuing the letter of credit must be an entity that has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by a Federal or State agency.

(iii) The wording of the letter of credit must be identical to the wording specified part (p)11 of this paragraph.

9. Surety Bond for Liability Coverage

(i) An owner or operator may satisfy the requirements of this subparagraph by obtaining a surety bond that conforms to the requirements of this part and submitting a copy of the bond to the Division Director.

(ii) The surety company issuing the bond must be licensed to do business as a surety in Tennessee.

(iii) The wording of the surety bond must be identical to the wording specified in part (p)12 of this paragraph.

(iv) A surety bond may be used to satisfy the requirements of this subparagraph only if the Attorneys General or Insurance Commissioners of

(I) the State in which the surety is incorporated, and

(II) each State in which a facility covered by the surety bond is located have submitted a written statement to the Division Director that a surety bond executed as described in this subparagraph and part (p)12 of this paragraph is a legally valid and enforceable obligation in that State.

10. Trust Fund for Liability Coverage

(i) An owner or operator may satisfy the requirements of this subparagraph by establishing a trust fund that conforms to the requirements of this part and submitting an originally signed duplicate of the trust agreement to the Division Director.

(ii) The trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

(iii) The trust fund for liability coverage must be funded for the full amount of the liability coverage to be provided by the trust fund before it may be relied upon to satisfy the requirements of this subparagraph. If at any time after the trust fund is created the amount of funds in the trust fund is reduced below the full amount of the liability coverage to be provided, the owner or operator, by the anniversary date of the establishment of the fund, must either add sufficient funds to the trust fund to cause its value to equal the full amount of liability coverage to be provided, or obtain other financial assurance as specified in this subparagraph to cover the difference. For purposes of this part, "the full amount of the liability coverage to be provided" means the amount of coverage for sudden and/or nonsudden occurrences required to be provided by the owner or operator by this subparagraph, less the amount of financial assurance for liability coverage that is being provided by other financial assurance mechanisms being used to demonstrate financial assurance by the owner or operator.

(iv) The wording of the trust fund must be identical to the wording specified in part (p)13 of this paragraph.

11. (Reserved) [40 CFR 264.147(k)]

(o) Incapacity of Owners or Operators, Guarantors, or Financial Institutions [40 CFR 264.148]

1. An owner or operator must notify the Division Director by certified mail of the commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming the owner or operator as debtor, within 10 days after commencement of the proceeding. A guarantor of a corporate guarantee as specified in part (g)8 of this paragraph must make such a notification if he is named as debtor, as required under the terms of the corporate guarantee (part (p)8 of this paragraph).

2. An owner or operator who fulfills the requirements of subparagraphs (d),(f) or (n) of this paragraph by obtaining a trust fund, surety bond, letter of credit, or insurance policy will

be deemed to be without the required financial assurance or liability coverage in the event of bankruptcy of the trustee or issuing institution, or a suspension or revocation of the authority of the trustee institution to act as trustee or of the institution issuing the surety bond, letter of credit, or insurance policy to issue such instruments. The owner or operator must establish other financial assurance or liability coverage within 60 days after such an event.

(p) Wording of the Instruments

The wording of the financial instruments listed below must be as follows or otherwise approved for use by the Commissioner:
(Note: See Table of Contents for Page Numbers.)

1. Trust Agreement for a Trust Fund
2. Surety Bond Guaranteeing Payment into a Trust Fund
3. Surety Bond Guaranteeing Performance of Closure and/or Post-closure Care
4. Irrevocable Standby Letter of Credit (For Closure and/or Post-closure Requirements)
5. Certificate of Insurance for Closure and/or Post-closure
6. Letter from Chief Financial Officer (For Closure and/or Post-closure Costs Only)
7. Letter from Chief Financial Officer (For Closure and/or Post-closure Care and Liability Coverage)
8. (i) Corporate Guarantee for Closure or Post-closure
   (ii) Guarantee for Liability Coverage
9. Hazardous Waste Facility Liability Endorsement
10. Hazardous Waste Facility Certificate of Liability Insurance
11. Irrevocable Standby Letter of Credit (For Liability Requirements)
12. Payment Bond (Surety Bond)
13. (i) Trust Agreement
    (ii) Certification of Acknowledgement
14. (i) Standby Trust Agreement
    (ii) Certification of Acknowledgement
15. Personal Bond Supported by Securities
16. *Combined Hazardous and Solid Waste Financial Test
    (i) Letter From Chief Financial Officer (Closure and/or Post-closure)
    (ii) Letter From Chief Financial officer (Liability Coverage or Liability Coverage and Closure/Post-closure)
    (iii) Corporate Guarantee for Closure or Post-closure Care

* Note: Copies of the three financial instrument forms listed above may be obtained by calling the Financial Assurance Office of the Division of Solid Waste Management at 615-532-0780 or writing to :

Attn: Financial Assurance Office
Tennessee Department of Environment & Conservation
Division of Solid Waste Management
L & C Tower, 5th Floor
401 Church Street
Nashville, TN 37243-1535

1. TRUST AGREEMENT

(i) A trust agreement for a trust fund, as specified in part (g)1 of this paragraph or Rule 1200-1-11-.05(8)(g)1, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

TRUST AGREEMENT

Trust Agreement, the "Agreement," entered into as of [date] by and between [name of the owner or operator], a [name of State] [insert "corporation," "partnership," "association," or "proprietorship"], the "Grantor," and [name of corporate trustee], [insert "incorporated in the State of _____" or "a national bank"], the "Trustee."

Whereas, the Tennessee Department of Environment and Conservation (TDEC), an agency of the State of Tennessee, has established certain regulations applicable to the Grantor, requiring that an owner or operator of a hazardous waste management facility shall provide assurance that funds will be available when needed for closure and/or post-closure care of the facility,

Whereas, the Grantor has elected to establish a trust to provide all or part of such financial assurance for the facilities identified herein,

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee,

Now, Therefore, the Grantor and the Trustee agree as follows:

SECTION 1
DEFINITIONS

As used in this Agreement:

(I) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(II) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

SECTION 2
IDENTIFICATION OF FACILITIES AND COST ESTIMATES

This Agreement pertains to the facilities and cost estimates identified on attached Schedule A [on Schedule A, for each facility list the EPA Identification Number, name, address, and the current closure and/or post-closure cost estimates, or portions thereof, for which financial assurance is demonstrated by this Agreement].

SECTION 3
ESTABLISHMENT OF FUND

The Grantor and the Trustee hereby establish a trust fund, the "Fund," for the benefit of TDEC. The Grantor and the Trustee intend that no third party have access to the Fund except as herein provided. The Fund is established initially as consisting of the property, which is acceptable to the

Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by TDEC.

SECTION 4
PAYMENT FOR CLOSURE AND POST-CLOSURE CARE

The Trustee shall make payments from the Fund as the Commissioner of TDEC shall direct, in writing, to provide for the payment of the costs of closure and/or post-closure care of the facilities covered by this Agreement. The Trustee shall reimburse the Grantor or other persons as specified by the Commissioner of TDEC from the Fund for closure and post-closure expenditures in such amounts as the Commissioner of TDEC shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as the Commissioner of TDEC specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

SECTION 5
PAYMENTS COMPRISING THE FUND

Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

SECTION 6
TRUSTEE MANAGEMENT

The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(I) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2.(a), shall not be acquired or held, unless they are securities or other obligations of the Federal or a State government;

(II) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or State government; and

(III) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

SECTION 7
COMMINGLING AND INVESTMENT

The Trustee is expressly authorized in its discretion:

(I) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(II) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

SECTION 8
EXPRESS POWERS OF TRUSTEE

Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(I) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(II) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(III) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depositary even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depositary with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(IV) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(V) To compromise or otherwise adjust all claims in favor of or against the Fund.

SECTION 9
TAXES AND EXPENSES

All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

SECTION 10

ANNUAL VALUATION

The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the Commissioner of TDEC a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the Commissioner of TDEC shall constitute a conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

SECTION 11
ADVICE OF COUNSEL

The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

SECTION 12
TRUSTEE COMPENSATION

The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

SECTION 13.
SUCCESSOR TRUSTEE.

The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the Commissioner of TDEC, and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this SECTION shall be paid as provided in SECTION 9.

SECTION 14
INSTRUCTIONS TO THE TRUSTEE

All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendment to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the Commissioner of TDEC to the Trustee shall be in writing, signed by the Commissioner of TDEC, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or TDEC hereunder has

occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or TDEC, except as provided for herein.

SECTION 15
NOTICE OF NONPAYMENT

The Trustee shall notify the Grantor and the Commissioner, by certified mail within 10 days following the expiration of the 30-day period after the anniversary of the establishment of the Trust, if no payment is received from the Grantor during that period. After the pay-in period is completed, the Trustee shall not be required to send a notice of nonpayment.

SECTION 16
AMENDMENT OF AGREEMENT

This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the Commissioner of TDEC, or by the Trustee and the Commissioner of TDEC if the Grantor ceases to exist.

SECTION 17
IRREVOCABILITY AND TERMINATION

Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the Commissioner of TDEC, or by the Trustee and the Commissioner of TDEC, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

SECTION 18
IMMUNITY AND INDEMNIFICATION

The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the Commissioner of TDEC issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

SECTION 19
CHOICE OF LAW

This Agreement shall be administered, construed, and enforced according to the laws of the State of [insert name of State].

SECTION 20
INTERPRETATION

As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written: The parties below certify that the wording of this Agreement is identical to the

wording specified in Tennessee Rule 1200-1-11-.06(8)(p)1 as such regulations were constituted on the date first above written.

[Signature of Grantor]_____

[Title]_____

Attest:_____

[Title]_____

[Seal]

[Signature of Trustee]_____

Attest:_____

[Title]_____

[Seal]

(ii) The following is an example of the certification of acknowledgment which must accompany the trust agreement for a trust fund as specified in part (g)1 of this paragraph or Rule 1200-1-11-.05(8)(g)1.

State of _____

County of _____

On this [date], before me personally came [owner or operator] to me known, who, being by me duly sworn, did depose and say that she/he resides at [address], that she/he is [title] of [corporation], the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

Subscribed and sworn to before me this _____day of _____, ____

_____
Notary Public

My commission expires on the _____day of _____, _____

* * * * * * * * * * * * *

2. SURETY BOND – FINANCIAL GUARANTEE BOND

A surety bond guaranteeing payment into a trust fund, as specified in Rule 1200-1-11-.05(8)(g)2 or part (g)2 of this paragraph, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

FINANCIAL GUARANTEE BOND

Date bond executed:_____

Effective date:_____

Principal: [legal name and business address of owner or operator]_____

_____

Type of Organization: [insert "individual," "joint venture," "partnership," or "corporation"]_____

_____

State of incorporation: _____

Surety(ies): [name(s) and business address(es)]_____

_____

EPA Identification Number, name, address and closure and/or post-closure amount(s) for each facility guaranteed by this bond [indicate closure and post-closure amounts separately]: _____

_____

Total penal sum of bond: $_____

Surety's bond number:_____

Know All Persons By These Presents, That we, the Principal and Surety(ies) hereto are firmly bound to the Tennessee Department of Environment and Conservation (hereinafter called Department), in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

Whereas said Principal is required, under the Tennessee Hazardous Waste Management Act as amended (THWMA), to have a permit or interim status in order to own or operate each hazardous waste management facility identified above, and

Whereas said Principal is required to provide financial assurance for closure, or closure and post-closure care, as a condition of the permit or interim status, and

Whereas said Principal shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;

Now, Therefore, the conditions of the obligation are such that if the Principal shall faithfully, before the beginning of final closure of each facility identified above, fund the standby trust fund in the amount(s) identified above for the facility,

Or, if the Principal shall fund the standby trust fund in such amount(s) within 15 days after a final order to begin closure is issued by the Commissioner of the Tennessee Department of Environment and Conservation, the Tennessee Solid Waste Disposal Control Board, or a court of competent jurisdiction,

Or, if the Principal shall provide alternate financial assurance, as specified in Tennessee Rule 1200-1-11-.05(8) or Rule 1200-1-11-.06(8), as applicable, and obtain the Director of the Department's Division of Solid Waste Management (hereinafter called Division Director) written approval of such assurance, within 90 days after the date notice of cancellation is received by both the Principal and the Division Director from the Surety(ies), then this obligation shall be null and void; otherwise it is to remain in full force and effect.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above. Upon notification by the Division Director that the Principal has failed to perform as guaranteed by this bond, the Surety(ies) shall place funds in the amount guaranteed for the facility(ies) into the standby trust fund as directed by the Division Director.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Division Director, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by both the Principal and the Division Director, as evidenced by the return receipts.

The Principal may terminate this bond by sending written notice to the Surety(ies), provided, however, that no such notice shall become effective until the Surety(ies) receive(s) written authorization for termination of the bond by the Division Director.

(The following paragraph is an optional rider that may be included but is not required.)

Principal and Surety(ies) hereby agree to adjust the penal sum of the bond yearly so that it guarantees a new closure and/or post-closure amount, provided that the penal sum does not increase by more than 20 percent in any one year, and no decrease in the penal sum takes place without the written permission of the Division Director.

In Witness Whereof, the Principal and Surety(ies) have executed this Financial Guarantee Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in Tennessee Rule 1200-1-11-.06(8)(p)2 as such regulations were constituted on the date this bond was executed.

Principal

[Signature(s)] _____

[Name(s)] _____

[Title(s)] _____

[Corporate seal]

Corporate Surety(ies)

[Name and address]_____

State of incorporation:] _____

Liability limit: $ _____

[Signature(s)]_____

[Name(s) and title(s)]_____

[Corporate seal]

[For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.]

Bond premium: $ _____

* * * * * * * * * * * * *

3. PERFORMANCE BOND

A surety bond guaranteeing performance of closure and/or post-closure care, as specified in part (g)3 of this paragraph, must be worded as follows, except that the instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

PERFORMANCE BOND

Date bond executed:_____

Effective date:_____

Principal: (legal name and business address of owner or operator)_____

_____

Type of organization: (insert "individual," "joint venture," "partnership," or "corporation") _____

_____

State of incorporation:_____

Surety(ies): (Name(s) and business address(es))_____

_____

Facilities Covered (EPA Identification Number, name, address, and closure and/or post-closure amount(s) for each facility guaranteed by this bond (indicate closure and post-closure amounts

separately)):_____
_____

Total penal sum of bond: $_____

Surety's bond number:_____

KNOW ALL PERSONS BY THESE PRESENTS, That we, the Principal and Surety(ies) hereto are firmly bound to the Tennessee Department of Environment and Conservation (hereinafter called Department), in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

WHEREAS said Principal is required, under the Tennessee Hazardous Waste Management Act as amended (THWMA), to have a permit in order to own or operate each hazardous waste management facility identified above, and

WHEREAS said Principal is required to provide financial assurance for closure, or closure and post-closure care, as a condition of the permit;

NOW, THEREFORE, the conditions of this obligation are such that if the Principal shall faithfully perform closure, whenever required to do so, of each facility for which this bond guarantees closure, in accordance with the closure plan and other requirements of the permit as such plan and permit may be amended, pursuant to all applicable laws, statutes, rules, and regulations, as such laws, statutes, rules, and regulations may be amended,

AND, if the Principal shall faithfully perform post-closure care of each facility for which this bond guarantees post-closure care, in accordance with the post-closure plan and other requirements of the permit, as such plan and permit may be amended, pursuant to all applicable laws, statutes, rules, and regulations, as such laws, statutes, rules, and regulations may be amended,

OR, if the Principal shall provide alternate financial assurance as specified in Department Rule 1200-1-11-.06(8), and obtain the written approval of such assurance from the Director of the Department's Division of Solid Waste Management (hereinafter called Division Director), within 90 days after the date notice of cancellation is received by both the Principal and the Division Director from the Surety(ies), then this obligation shall be null and void, otherwise it is to remain in full force and effect.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above.

Upon notification by the Division Director that the principal has been found in violation of the closure requirements of Department Rule 1200-1-11-.06, for a facility for which this bond guarantees performance of closure, the Surety(ies) shall either perform closure in accordance with the closure plan and other permit requirements or forfeit the closure amount guaranteed for the facility to the Department as directed by the Division Director.

Upon notification by the Division Director that the Principal has been found in violation of the post-closure requirements of Department Rule 1200-1-11-.06 for a facility for which this bond

guarantees performance of post-closure care, the Surety(ies) shall either perform post-closure care in accordance with the post-closure plan and other permit requirements or forfeit the post-closure amount guaranteed for the facility to the Department as directed by the Division Director.

Upon notification by the Division Director that the Principal has failed to provide alternate financial assurance as specified in Department Rule 1200-1-11-.06(8), and obtain written approval of such assurance from the Division Director during the 90 days following receipt by both the Principal and the Division Director of a notice of cancellation of this bond, the Surety(ies) shall forfeit funds in the amount guaranteed for the facility(ies) to the Department as directed by the Division Director.

The Surety(ies) hereby waive(s) notification of amendments to closure plans, permits, applicable laws, statutes, rules, and regulations and agrees that no such amendment shall in any way alleviate its (their) obligation on this bond.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of this bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the principal (owner or operator) and to the Division Director, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by both the Principal and the Division Director, as evidenced by the return receipts.

The Principal may terminate this bond by sending written notice to the Surety(ies), provided, however, that no such notice shall become effective until the Surety(ies) receive(s) written authorization for termination of this bond by the Division Director.

(The following paragraph is an optional rider that may be included but is not required.)

Principal and Surety(ies) hereby agrees to adjust the penal sum of the bond yearly so that it guarantees a new closure and/or post-closure amount, provided that the penal sum does not increase by more than 20 percent in any one year, and no decrease in the penal sum takes place without the written permission of the Division Director.

IN WITNESS WHEREOF, the Principal and Surety(ies) have executed this PERFORMANCE BOND and have affixed their seals on the date (s) set forth below.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in Department Rule 1200-1-11-.06(8)(p)3 as such regulation was constituted on the date (s) this bond was executed.

PRINCIPAL

(Signature(s))_____

(Name(s))_____

(Title(s))_____

(Corporate seal)

CORPORATE SURETY(IES)

(Name and address)_____
_____

State of incorporation:_____

Liability limit:
$_____

(Signature(s))_____

(Name(s) and title(s))_____
_____

(Corporate seal)

(For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.)_____
_____

Bond premium: $_____

* * * * * * * * * * * * *

4. IRREVOCABLE STANDBY LETTER OF CREDIT

A letter of credit, as specified in part (g)4 of this paragraph or Rule 1200-1-11-.05(8)(g)3, must be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

IRREVOCABLE STANDBY LETTER OF CREDIT

Director
Division of Solid Waste Management
Tennessee Department of Environment and Conservation

Dear Sir or Madam:

We hereby establish our Irrevocable Standby Letter of Credit No. _____ in your favor, at the request and for the account of (owner's or operator's name and address) up to the aggregate amount of (in words) U.S. dollars $_____, available upon presentation of

(i) your sight draft, bearing reference to this letter of credit No. _____, and

(ii) your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to regulations issued under authority of the Tennessee Hazardous Waste Management Act, as amended."

This letter of credit is effective as of (date) and shall expire on (date at least 1 year later), but such expiration date shall be automatically extended for a period of (at least 1 year) on (date) and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify both you and (owner's or operator's name) by certified mail that we have decided not to extend this letter of credit beyond the current expiration date. In the event you are so notified, any unused portion of the credit shall be available upon presentation of your sight draft for 120 days after the date of receipt by both you and (owner's or operator's name), as shown on the signed return receipts.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us, and we shall forfeit the amount of the draft to the State of Tennessee in accordance with your instructions.

We certify that the wording of this letter of credit is identical to the wording specified in Tennessee Rule 1200-1-11-.06(8)(p)4 as such regulations were constituted on the date shown immediately below.

(Signature(s))_____

(Name(s))_____

(Title(s))_____

(Corporate seal)

(Date)_____

This credit is subject to (insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published and copyrighted by the International Chamber of Commerce," or "the Uniform Commercial Code").

* * * * * * * * * * * * *

5. CERTIFICATE OF INSURANCE FOR CLOSURE OR POST-CLOSURE CARE

A certificate of insurance, as specified in part (g)5 of this paragraph or Rule 1200-1-11-.05(8)(g)4, must be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

CERTIFICATE OF INSURANCE FOR CLOSURE OR POST-CLOSURE CARE

Name and Address of Insurer
(herein called the "Insurer"):_____
_____

Name and Address of Insured
(herein called the "Insured"):_____
_____

Facilities Covered:(List for each facility: The EPA Identification Number, name, address, and the amount of insurance for closure and/or the amount for post-closure care (these amounts for all facilities covered must total the face amount shown below):_____
_____
_____

Face Amount:_____

Policy
Number:_____

Effective Date:_____

The Insurer hereby certifies that it has issued to the Insured the policy of insurance identified above to provide financial assurance for (insert "closure" or "closure and post-closure care" or "post-closure care") for the facilities identified above. The Insurer further warrants that such policy conforms in all respects with the requirements of State Rules 1200-1-11-.05(8)(g)4 and 1200-1-11-.06(8)(g)5, as applicable and as such regulations were constituted on the date shown immediately below. It is agreed that any provision of the policy inconsistent with such regulations is hereby amended to eliminate such inconsistency.

Whenever requested by the Director of the Division of Solid Waste Management of the Tennessee Department of Environment and Conservation, the Insurer agrees to furnish to the Division Director a duplicate original of the policy listed above, including all endorsements thereon.

I hereby certify that the wording of this certificate is identical to the wording specified in Tennessee Rule 1200-1-11-.06(8)(p)5 as such regulations were constituted on the date shown immediately below.

(Authorized signature for Insurer)_____

(Name of person signing)_____

(Title of person signing) _____

Subscribed and sworn to before me this _____day of _____, ____

_____
Notary Public

My commission expires on the _____day of _____, _____

* * * * * * * * * * * * *

6. LETTER FROM CHIEF FINANCIAL OFFICER

A letter from the chief financial officer, as specified in Rule 1200-1-11-.05(8)(g)7 or Rule 1200-1-11-.06(8)(g)8 must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

LETTER FROM CHIEF FINANCIAL OFFICER

[Address to Division Director]

I am the chief financial officer of [name and address of firm]. This letter is in support of this firm's use of the financial test to demonstrate financial assurance for closure and/or post-closure costs, as specified in paragraph (8) of Rules 1200-1-11-.05 and .06.

(Fill out the following five paragraphs regarding facilities and associated cost estimates. If your firm has no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its Installation Identification Number, name, address, and current closure and/or post-closure cost estimates. Identify each cost estimate as to whether it is for closure or post-closure care.)

(i) This firm is the owner or operator of the following facilities for which financial assurance for which financial assurance for closure or post-closure care is demonstrated through the financial test specified in paragraph (8) of Rules 1200-1-11-.05 and .06. The current closure and/or post-closure cost estimates covered by the test are shown for each facility: _____.

(ii) This firm guarantees, through the guarantee specified in paragraph (8) of Rules 1200-1-11-.05 and .06, the closure or post-closure care of the following facilities owned or operated by the guaranteed party. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility:_____. The firm identified above is [insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee _____; or (3) engaged in the following substantial relationship with the owner or operator _____, and receiving the following value in consideration of this guarantee _____]. (Attach a written

description of the business relationship or a copy of the contract establishing such relationship to this letter.)

(iii) In States other than Tennessee, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in paragraph (8) of Rules 1200-1-11-.05 and .06. The current closure and/or post-closure cost estimates covered by such a test are shown for each facility:_____.

(iv) This firm is the owner or operator of the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to the Department, another State, or the U.S. Environmental Protection Agency (EPA) through the financial test or any other financial assurance mechanism specified in paragraph (8) of Rules 1200-1-11-.05 and .06 or equivalent or substantially equivalent State mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility:_____

(v) This firm is the owner or operator of the following UIC facilities for which financial assurance for plugging and abandonment is required under 40 CFR part 144. The current closure cost estimates as required by 40 CFR 144.62 are shown for each facility:_____

This firm [insert "is required" or "is not required"] to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on [month, day]. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended [date].

(Fill in Alternative I if the criteria of Rule 1200-1-11-.05(8)(g)7(i)(I) or Rule 1200-1-11-.06(g)8(i)(I) are used. Fill in Alternative II if the criteria of Rule 1200-1-11-.05(8)(g)7(i)(II) or Rule 1200-1-11-.06(8)(g)8(i)(II) are used.)

Alternative I

1.	Sum of current closure and post-closure cost estimate (total of all cost estimates shown in the five paragraphs above) $_____	
*2.	Total liabilities (if any portion of your closure or post-closure cost estimates is included in your total liabilities, you may deduct the amount of that portion from this line and add that amount to lines 3 and 4)	$_____
*3.	Tangible net worth	$_____
*4.	Net worth	$_____
*5.	Current assets	$_____
*6.	Current liabilities	$_____
7.	Net working capital (line 5 minus line 6)	$_____
*8.	The sum of net income plus depreciation, depletion, and amortization	$_____
*9.	Total assets in U.S. (required only if less than 90% of firm's	

	assets are located in the U.S.)	$_____
10.	Is line 3 at least $10 million? (Yes/No)	_____
11.	Is line 3 at least 6 times line 1? (Yes/No)	_____
12.	Is line 7 at least 6 times line 1? (Yes/No)	_____
*13.	Are at least 90% of firm's assets located in the U.S.? If not, complete line 14 (Yes/No)	_____
14.	Is line 9 at least 6 times line 1? (Yes/No)	_____
15.	Is line 2 divided by line 4 less than 2.0? (Yes/No)	_____
16.	Is line 8 divided by line 2 greater than 0.1? (Yes/No)	_____
17.	Is line 5 divided by line 6 greater than 1.5? (Yes/No)	_____

Alternative II

1.	Sum of current closure and post-closure cost estimates (total of all cost estimates shown in the five paragraphs above)	$_____
2.	Current bond rating of most recent issuance of this firm and name of rating service	$_____
3.	Date of issuance of bond	_____
4.	Date of maturity of bond	_____
*5.	Tangible net worth (if any portion of the closure and post-closure cost estimates is included in "total liabilities" on your firm's financial statements, you may add that portion to this line)	$_____
*6.	Total assets in U.S. (required only if less than 90% of firm's assets are located in the U.S.)	$_____
7.	Is line 5 at least $10 million? (Yes/No)	$_____
8.	Is line 5 at least 6 times line 1? (Yes/No)	_____
*9.	Are at least 90% of firm's assets located in the U.S.? If not, complete line 10 (Yes/No)	_____
10.	Is line 6 at least 6 times line 1? (Yes/No)	_____

I hereby certify that the wording of this letter is identical to the wording specified in Tennessee Rule 1200-1-11-.06(8)(p)6 as such regulations were constituted on the date shown immediately below.

[Signature]_____

[Name]_____

[Title]_____

[Date]_____

* * * * * * * * * * * * *

7. LETTER FROM CHIEF FINANCIAL OFFICER

A letter from the chief financial officer, as specified in Rule 1200-1-11-.05(8)(n)6 or Rule 1200-1-11-.06(8)(n)6, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the parentheses deleted:

LETTER FROM CHIEF FINANCIAL OFFICER

(Address to Division Director)

I am the chief financial officer of [firm's name and address]. This letter is in support of the use of the financial test to demonstrate financial responsibility for liability coverage [insert "and closure and/or post-closure care" if applicable] as specified in Rules 1200-1-11-.05(8) and 1200-1-11-.06(8).

(Fill out the following paragraphs regarding facilities and liability coverage. If there are no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its Installation Identification Number, name, and address.)

The firm identified above is the owner or operator of the following facilities for which liability coverage for [insert "sudden" or "nonsudden" or "both sudden and nonsudden"] accidental occurrences is being demonstrated through the financial test specified in Rules 1200-1-11-.05(8) and 1200-1-11-.06(8):_____.

The firm identified above guarantees, through the guarantee specified in Rules 1200-1-11-.05(8) and 1200-1-11-.06(8), liability coverage for [insert "sudden" or "nonsudden" or "both sudden and nonsudden"] accidental occurrences at the following facilities owned or operated by the following: _____. The firm identified above is (insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee _____; or (3) engaged in the following substantial business relationship with the owner or operator _____, and receiving the following value in consideration of this guarantee _____.) (Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter.)

(If you are using the financial test to demonstrate coverage of both liability and closure and post-closure care, fill in the following five paragraphs regarding facilities and associated closure and post-closure cost estimates. If there are no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its Installation Identification Number, name, address, and current closure and/or post-closure cost estimates. Identify each cost estimate as to whether it is for closure or post-closure care.)

(i) The firm identified above owns or operates the following facilities for which financial assurance for closure or post-closure care or liability coverage is demonstrated through the financial test specified in Rules 1200-1-11-.05(8) and 1200-1-11-.06(8). The current closure and/or post-closure cost estimate covered by the test are shown for each facility:
_____

(ii) The firm identified above guarantees, through the guarantee specified in Rules 1200-1-11-.05(8) and 1200-1-11-.06(8), the closure and post-closure care or liability coverage of the following facilities owned or operated by the guaranteed party. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility:_____

(iii) In States other than Tennessee, this firm is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in Rules 1200-1-11-.05(8) and 1200-1-11-.06(8). The current closure or post-closure cost estimates covered by such a test are shown for each facility:_____

(iv) The firm identified above owns or operates the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to the Department, another State, or the U.S. Environmental Protection Agency through the financial test or any other financial assurance mechanisms specified in Rules 1200-1-11-.05(8) and 1200-1-11-.06(8) or equivalent or substantially equivalent State mechanisms. The current closure or post-closure cost estimates not covered by such financial assurance are shown for each facility:_____.

(v) This firm is the owner or operator or guarantor of the following UIC facilities for which financial assurance for plugging and abandonment is required under 40 CFR Part 144 and is assured through a financial test. The current closure cost estimates as required by 40 CFR 144.62 are shown for each facility:_____

This firm [insert "is required" or "is not required"]to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on [month, day] The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended [date].

(Fill in part A if you are using the financial test to demonstrate coverage only for the liability requirements.)

Part A. Liability Coverage for Accidental Occurrences

(Fill in Alternative I if the criteria of Rule 1200-1-11-.05(8)(n)6(i)(I) or Rule 1200-1-11-.06(8)(n)6(i)(I) are used. Fill in Alternative II if the criteria of Rule 1200-1-11-.05(8)(n)6(i)(II) or Rule 1200-1-11-.06(8)(n)6(i)(II) are used.)

ALTERNATIVE I

1.	Amount of annual aggregate liability coverage to be demonstrated.	$_____
*2.	Current assets	$_____
*3.	Current liabilities	$_____
4.	Net working capital (line 2 minus line 3).	$_____
*5.	Tangible net worth	$_____
*6.	If less than 90% or assets are located in the U.S., given total U.S. assets.	$_____
		Yes or No
7.	Is line 5 at least $10 million?	_____
8.	Is line 4 at least 6 times line 1?	_____
9.	Is line 5 at least 6 times line 1?	_____
*10.	Are at least 90% of assets located in the U.S.? If not, complete line 11.	_____
11.	Is line 6 at least 6 times line 1?	_____

ALTERNATIVE II

1.	Amount of annual aggregate liability coverage to be demonstrated.	$_____
2.	Current bond rating of most recent issuance and name of rating service.	_____
3.	Date of issuance of bond.	_____
4.	Date of maturity of bond.	_____
*5.	Tangible net worth	$_____
*6.	Total assets in U.S. (required only if less than 90% of assets are located in the U.S.).	$_____
		Yes or No
7.	Is line 5 at least $10 million?	_____
8.	Is line 5 at least 6 times line 1?	_____
9.	Are at least 90% of assets located in the U.S.? If not, complete line 10.	_____
10.	Is line 6 at least 6 times line 1?	_____

(Fill in part B if you are using the financial test to demonstrate assurance of both liability coverage and closure or post-closure care.)

Part B. Closure or Post-Closure Care and Liability Coverage

(Fill in Alternative I if the criteria of Rule 1200-1-11-.06(8)(g)8(i)(I) and Rule 1200-1-11-.06(8)(n)6(i)(I) are used or if the criteria of Rule 1200-1-11-.05(8)(g)7(i)(I) and Rule 1200-1-11-.05(8)(n)6(i)(I) are used. Fill in Alternative II if the criteria of Rule 1200-1-11-.06(8)(g)8(i)(II) and Rule 1200-1-11-.06(8)(n)6(i)(II) are used or if the criteria of Rule 1200-1-11-.05(8)(g)7(i)(II) and Rule 1200-1-11-.05(8)(n)6(i)(II) are used.)

ALTERNATIVE I

1.	Sum of current closure and post-closure cost estimates (total of all cost estimates listed above).	$_____
2.	Amount of annual aggregate liability coverage to be demonstrated.	$_____
3.	Sum of lines 1 and 2	$_____
*4.	Total liabilities (if any portion of your closure or post-closure cost estimates is included in your total liabilities, you may deduct that portion from this line and add that amount to lines 5 and 6).	$_____
*5.	Tangible net worth	$_____
*6.	Net worth	$_____
*7.	Current assets	$_____
*8.	Current liabilities	$_____
9.	Net working capital (line 7 minus line 8).	$_____
*10.	The sum of net income plus depreciation, depletion, and amortization.	$_____
*11.	Total assets in U.S. (required only if less than 90% of assets are	$_____

located in the U.S.).

		Yes or No
12.	Is line 5 at least $10 million?	_____
13.	Is line 5 at least 6 times line 3?	_____
14.	Is line 9 at least 6 times line 3?	_____
*15.	Are at least 90% of assets located in the U.S.? If not, complete line 16.	_____
16.	Is line 11 at least 6 times line 3?	_____
17.	Is line 4 divided by line 6 less than 2.0?	_____
18.	Is line 10 divided by line 4 greater than 0.1?	_____
19.	Is line 7 divided by line 8 greater than 1.5?	_____

ALTERNATIVE II

1.	Sum of current closure and post-closure cost estimates (total of all cost estimates listed above).	$_____
2.	Amount of annual aggregate liability coverage to be demonstrated.	$_____
3.	Sum of lines 1 and 2	$_____
4.	Current bond rating of most recent issuance and name of rating service.	$_____
5.	Date of issuance of bond.	_____
6.	Date of maturity of bond.	_____
*7.	Tangible net worth (if any portion of the closure or post-closure cost estimates is included in "total liabilities" on your financial statements you may add that portion to this line.)	$_____
*8.	Total assets in U.S. (required only if less than 90% of assets are located in the U.S.).	$_____

		Yes or No
9.	Is line 7 at least $10 million?	_____
10.	Is line 7 at least 6 times line 3?	_____
*11.	Are at least 90% of assets located in the U.S.? If not, complete line 12.	_____
12.	Is line 8 at least 6 times line 3?	_____

I hereby certify that the wording of this letter is identical to the wording specified in Tennessee Rule 1200-1-11-.06(8)(p)7 as such regulations were constituted on the date shown immediately below.

(Signature)_____

(Name)_____

(Title)_____

(Date)_____

* * * * * * * * * * * *

8. CORPORATE GUARANTEE FOR CLOSURE OR POST-CLOSURE CARE

(i) A corporate guarantee, as specified in Rule 1200-1-11-.05(8)(g)7 or Rule 1200-1-11-06(8)(g)8, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

CORPORATE GUARANTEE FOR CLOSURE OR POST-CLOSURE CARE

Guarantee made this [date] by [name of guaranteeing entity], a bu`siness corporation organized under the laws of the State of [insert name of State], herein referred to as guarantor. This guarantee is made [to the Tennessee Department of Environment and Conservation] on behalf of the [owner or operator] of [business address], which is [one of the following: "our subsidiary", "a subsidiary of [name and address of common parent corporation], of which guarantor is a "subsidiary"; or "an entity with which guarantor has a substantial business relationship, as defined in either Rule 1200-1-11-.05(8)(b) or Rule 1200-1-11-.06(8)(b)".

Recitals

1. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors as specified in Rule 1200-1-11-.05(8)(n)7 and Rule 1200-1-11-.06(8)(n)7.

2. [Owner or operator] owns or operates the following hazardous waste management facility(ies) covered by this guarantee: (List for each facility: Installation Identification Number, name, and address. Indicate for each whether guarantee is for closure, post-closure care, or both.)

3. "Closure plans" and "post-closure plans" as used below refer to the plans maintained as required by Tennessee Rules 1200-1-11-.05(7) and 1200-1-11-.06(7) for the closure and post-closure care of facilities as identified above.

4. For value received from [owner or operator], guarantor guarantees to the Department that in the event that [owner or operator] fails to perform [insert "closure," "post-closure care" or "closure and post-closure care"] of the above facility(ies) in accordance with the closure or post-closure plans and other permit or interim status requirements whenever required to do so, the guarantor shall do so or forfeit to the State of Tennessee, as specified in Tennessee Rules 1200-1-11-.05(8) or 1200-1-11-.06(8), as applicable, monies in an amount equal to the current closure or post-closure cost estimates as specified in Tennessee Rules 1200-1-11-.05(8) and 1200-1-11-.06(8).

5. Guarantor agrees that if, at the end of any fiscal year before termination of this guarantee, the guarantor fails to meet the financial test criteria, guarantor shall send within 90 days, by certified mail, notice to the Director of the Department's Division of Solid Waste Management (Division Director) and to [owner or operator] that he intends to provide alternate financial assurance as specified in Tennessee Rules 1200-1-11-.05(8) or 1200-1-11-.06(8), as applicable, in the name of (owner or operator). Within 120 days after the end of such fiscal year, the guarantor shall establish such financial assurance unless [owner or operator] has done so.

6. The guarantor agrees to notify the Division Director, by certified mail, of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming guarantor as debtor, within 10 days after commencement of this proceeding.

7. Guarantor agrees that within 30 days after being notified by the Division Director of a determination that guarantor no longer meets the financial test criteria or that he is disallowed from continuing as a guarantor of closure or post-closure, he shall establish alternate financial assurance as specified in Tennessee Rules 1200-1-11-.05(8) or 1200-1-11-.06(8), as applicable, in the name of [owner or operator] unless [owner or operator] has done so.

8. Guarantor agrees to remain bound under this guarantee notwithstanding any or all of the following: amendment or modification of the closure or post-closure plan, amendment or modification of the permit, the extension or reduction of the time of performance of closure or post-closure, or any other modification or alteration of an obligation of the owner or operator pursuant to Tennessee Rules 1200-1-11-.05 or 1200-1-11-.06.

9. Guarantor agrees to remain bound under this guarantee for so long as [owner or operator] must comply with the applicable financial assurance requirements of Tennessee Rules 1200-1-11-.05(8) and 1200-1-11-.06(8) for the above-listed facilities, except that guarantor may cancel this guarantee by sending notice by certified mail to the Division Director and to [owner or operator], such cancellation to become effective no earlier than 120 days after receipt of such notice by both the Department and [owner or operator], as evidenced by the return receipts.

10. (Insert the following language if the guarantor is (a) a direct or higher-tier corporate parent, or (b) a firm whose parent corporation is also the parent corporation of the owner or operator.)

    Guarantor may terminate this guarantee by sending notice by certified mail to the Division Director and to [owner or operator], provided that this guarantee may not be terminated unless and until [owner or operator] obtains, and the Commissioner approve(s), alternate closure and/or post-closure care coverage complying with Rule 1200-1-11-.05(8)(n) and/or rule 1200-1-11-.06(8)(n).

    (Insert the following language if the guarantor is a firm qualifying as a guarantor due to its "substantial business relationship" with its owner or operator.)

    Guarantor may terminate this guarantee 120 days following the receipt of notification, through certified mail, by the Division Director and by [the owner or operator].

11. Guarantor agrees that if [owner or operator] fails to provide alternate financial assurance as specified in Tennessee Rules 1200-1-11-.05(8) or 1200-1-11-.06(8), as applicable, and obtain written approval of such assurance from the Division Director within 90 days after a notice of cancellation by the guarantor is received by the Division Director from guarantor, guarantor shall provide such alternate financial assurance in the name of [owner or operator].

12. Guarantor expressly waives notice of acceptance of this guarantee by the Department or by [owner or operator]. Guarantor also expressly waives notice of amendments or modifications of the closure and/or post-closure plan and of amendments or modifications of the facility permit(s).

I hereby certify that the wording of this guarantee is identical to the wording specified in Tennessee Rule 1200-1-11-.06(8)(p)8(i) as such regulations were constituted on the date first above written.

Effective Date:_____

(Name of guarantor)_____

(Authorized signature for guarantor)_____

(Name of person signing)_____

(Title of person signing)_____

Subscribed and sworn to before me this _____day of _____, ___

_____
Notary Public

My commission expires on the _____day of _____, _____

(ii) A guarantee, as specified in Rule 1200-1-11-.05(8)(n)7 or Rule 1200-1-11-.06(8)(n)7 of this paragraph, must be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the brackets deleted:

GUARANTEE FOR LIABILITY COVERAGE

Guarantee made this [date] by [name of guaranteeing entity], a business corporation organized under the laws of [if incorporated within the United States], insert "the State of _____" and insert name of State; if incorporated outside the United States, insert the name of the country in which incorporated, the principal place of business within the United States, and the name and address of the registered agent in the State of the principal place of business], herein referred to as guarantor. This guarantee is made on behalf of [owner or operator] of [business address], which is one of the following: "our subsidiary;" "a subsidiary of [name and address of common parent corporation], or which guarantor is a subsidiary;" or "an entity with which guarantor has a substantial business relationship, as defined in [either Rule 1200-1-11-.05(8)(b) or Rule 1200-1-11-.06(8)(b)]" to any and all third parties who have sustained or may sustain bodily injury or property damage caused by [sudden and/or nonsudden] accidental occurrences arising from operation of the facility(ies) covered by this guarantee.

Recitals

1. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors as specified in Rule 1200-1-11-.05(8)(n)7 or Rule 1200-1-11-.06(8)(n)7.

2. [Owner or operator] owns or operates the following hazardous waste management facility(ies) covered by this guarantee: (List for each facility: Installation Identification Number, name, and address; and if guarantor is incorporated outside the United States, list the name and address of the guarantor's registered agent in each State.) This corporate guarantee satisfies third-party liability requirements for [insert "sudden" or "nonsudden" or "both sudden and nonsudden"] accidental occurrences in above-named

owner or operator facilities for coverage in the amount of [insert dollar amount] for each occurrence and [insert dollar amount] annual aggregate.

3. For value received from [owner or operator], guarantor guarantees to any and all third parties who have sustained or may sustain bodily injury or property damage caused by [sudden and/or nonsudden] accidental occurrences arising from operations of the facility(ies) covered by this guarantee that in the event that [owner or operator] fails to satisfy a judgement or award based on a determination of liability for bodily injury or property damage to third parties caused by [sudden and/or nonsudden] accidental occurrences, arising from the operation of the above-named facilities, or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the guarantor will satisfy such judgment(s), award(s), or settlement agreement(s) up to the limits of coverage identified above.

4. Such obligation does not apply to any of the following:

(i) Bodily injury or property damage for which [insert "owner" or "operator"] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert "owner" or "operator"] would be obligated to pay in the absence of the contract or agreement.

(ii) Any obligation of [insert "owner" or "operator"] under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(iii) Bodily injury to:

(I) An employee of [insert "owner" or "operator"] arising from, and in the course of, employment by [insert "owner" or "operator"]; or

(II) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert "owner" or "operator"]. This exclusion applies:

I. Whether [insert "owner" or "operator"] may be liable as an employer or in any other capacity; and

II. To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in items (I) and (II).

(iv) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(v) Property damage to:

(I) Any property owned, rented, or occupied by [insert "owner" or "operator"];

(II) Premises that are sold, given away or abandoned by [insert "owner" or "operator"] if the property damage arises out of any part of those premises;

(III) Property loaned to [insert "owner" or "operator"];

(IV) Personal property in the care, custody or control of [insert "owner" or "operator"];

(V) That particular part of real property on which [insert "owner" or "operator"] or any contractors or subcontractors working directly or indirectly on behalf of [insert "owner" or "operator"] are performing operations, if the property damage arises out of these operations.

5. Guarantor agrees that if, at the end of any fiscal year before termination of this guarantee, the guarantor fails to meet the financial test criteria, guarantor shall send within 90 days, by certified mail, notice to the Division Director and to [owner or operator] that he intends to provide alternate liability coverage as specified in Rules 1200-1-11-.05(8)(n) and 1200-1-11-.06(8)(n), as applicable, in the name of [owner or operator]. Within 120 days after the end of such fiscal year, the guarantor shall establish such liability coverage unless [owner or operator] has done so.

6. The guarantor agrees to notify the Division Director by certified mail of a voluntary or involuntary proceeding under Title 11 (Bankruptcy) U.S. Code, naming guarantor as debtor, within 10 days after commencement of the proceeding.

7. Guarantor agrees that within 30 days after being notified by the Division Director of a determination that guarantor no longer meets the financial test criteria or that he is disallowed from continuing as a guarantor, he shall establish alternate liability coverage as specified in Rules 1200-1-11-.05(8)(n) and 1200-1-11-.06(8)(n) in the name of [owner or operator], unless [owner or operator] has done so.

8. Guarantor reserves the right to modify this agreement to take into account amendment or modification of the liability requirements set by Rules 1200-1-11-.05(8)(n) and 1200-1-11-.06(8)(n), provided that such modification shall become effective only if the Division Director does not disapprove the modification within 30 days of receipt of notification of the modification.

9. Guarantor agrees to remain bound under this guarantee for so long as [owner or operator] must comply with the applicable requirements of Rules 1200-1-11-.05(8)(n) and 1200-1-11-.06(8)(n) for the above-listed facility(ies), except as provided in paragraph 10 of this agreement.

10. (Insert the following language if the guarantor is (a) a direct or higher-tier corporate parent, or (b) a firm whose parent corporation is also the parent corporation of the owner or operator.)

Guarantor may terminate this guarantee by sending notice by certified mail to the Division Director and to [owner or operator], provided that this guarantee may not be terminated unless and until [the owner or operator] obtains, and the Division Director approve(s), alternate liability coverage complying with Rules 1200-1-11-.05(8)(n) and 1200-1-11-.06(8)(n).

(Insert the following language if the guarantor is a firm qualifying as a guarantor due to its "substantial business relationship" with the owner or operator.)

Guarantor may terminate this guarantee 120 days following receipt of notification, through certified mail, by the Division Director and by [the owner or operator].

11. Guarantor hereby expressly waives notice of acceptance of this guarantee by any party.

12. Guarantor agrees that this guarantee is in addition to and does not affect any other responsibility or liability of the guarantor with respect to the covered facilities.

13. The Guarantor shall satisfy a third-party liability claim only on receipt of one of the following documents:

(i) Certification from the Principal and the third-party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

CERTIFICATION OF VALID CLAIM

The undersigned, as parties [insert Principal] and [insert name and address of third-party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or nonsudden] accidental occurrence arising from operating (Principal's) hazardous waste treatment, storage, or disposal facility should be paid in the amount of $(_____).

(Signatures)_____
Principal

Subscribed and sworn to before me this _____day of _____, ___

_____
Notary Public

My commission expires on the _____day of _____, _____

(Signatures)_____
Claimant(s)

Subscribed and sworn to before me this _____day of _____, ___

_____
Notary Public

My commission expires on the _____day of _____, _____

(ii) A valid final court order establishing a judgment against the Principal for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Principal's facility or group of facilities.

14. In the event of combination of this guarantee with another mechanism to meet liability requirements, this guarantee will be considered [insert "primary" or "excess"] coverage.

I hereby certify that the wording of the guarantee is identical to the wording specified in Tennessee Rule 1200-1-11-.06(8)(p)8(ii) as such regulations were constituted on the date shown immediately below.

Effective date:_____

(Name of guarantor)_____

(Authorized signature for guarantor)_____

(Name of person signing)_____

(Title of person signing)_____

Subscribed and sworn to before me this _____day of _____, _____

_____
Notary Public

My commission expires on the _____day of _____, _____

* * * * * * * * * * * *

9. HAZARDOUS WASTE FACILITY LIABILITY ENDORSEMENT

A hazardous waste facility liability endorsement, as required in Rule 1200-1-11-.05(8)(n) and Rule 1200-1-11-.06(8)(n) must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

HAZARDOUS WASTE FACILITY LIABILITY ENDORSEMENT

(i) This endorsement certifies that the policy to which the endorsement is attached provides liability insurance covering bodily injury and property damage in connection with the insured's obligation to demonstrate financial responsibility under Tennessee Department of Environment and Conservation Rules 1200-1-11-.05(8)(n) or 1200-1-11-.06(8)(n). The coverage applies at [list Installation Identification Number, name and address for each facility] for [insert "sudden accidental occurrences", "nonsudden accidental occurrences", or "sudden and nonsudden accidental occurrences". If coverage is for multiple facilities and the coverage is different for different facilities, indicate which facilities are insured for sudden accidental occurrences, which are insured for nonsudden accidental occurrences, and which are insured for both.] The limits of liability are [insert the dollar amount of the "each occurrence" and "annual aggregate" limits of the Insurer's liability], exclusive of legal defense costs. [If the endorsement is for an excess insurance policy, this last sentence should be replaced by a sentence which reads "The limits of liability are $_____ each occurrence and $_____ annual aggregate for bodily injury and property damage combined in excess of the underlying limits of $_____ each occurrence and $_____ annual aggregate", with the appropriate amounts indicated.]

(ii) The insurance afforded with respect to such occurrences is subject to all of the terms and conditions of the policy, provided, however, that any provision of the policy inconsistent with subitems I through V of this item are hereby amended to conform with subitems I through V:

I. Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy to which this endorsement is attached.

II. The Insurer is liable for the payment of amounts within any deductible, applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in Rules 1200-1-11-.05(8)(n)6 or 1200-1-11-.06(8)(n)6.

III. Whenever requested by the Commissioner of the Tennessee Department of Environment and Conservation or his designee, the Insurer agrees to furnish to the Commissioner or designee a signed duplicate original of the policy and all endorsements.

IV. Cancellation of this endorsement, whether by the Insurer, the insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the hazardous waste management facility, will be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the Division Director.

V. Any other termination of this endorsement will be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Division Director.

Attached to and forming part of policy no. _____ issued by (name of Insurer), herein called the Insurer, (addressof Insurer) to (name of Insured) of (address) this _____day of _____, ____. The effective date of said policy is _____ day of _____, ____.

I hereby certify that the wording of this endorsement is identical to the wording specified in Tennessee Department of Environment and Conservation Rule 1200-1-11-.06(8)(p)9 as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in Tennessee.

(Signature of Authorized Representative of Insurer)_____

(Type name)_____

(Title), Authorized Representative of (Name of Insurer)_____

(Address of Representative)_____

* * * * * * * * * * * * *

10. HAZARDOUS WASTE FACILITY CERTIFICATE OF LIABILITY INSURANCE

A certificate of liability insurance as required in Rule 1200-1-11-.05(8)(n) or subparagraph (n) of this paragraph, must be worded as follows, except that the instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

HAZARDOUS WASTE FACILITY CERTIFICATE OF LIABILITY INSURANCE

(i) (Name of Insurer), the "Insurer", of (Address of Insurer) hereby certifies that it has issued liability insurance covering bodily injury and property damage to (Name of Insured), the "insured", of (Address of Insured) in connection with the insured's obligation to demonstrate financial responsibility under Tennessee Department of Environment and Conservation Rules 1200-1-11-.05(8)(n) or 1200-1-11-.06(8)(n). The coverage applies at (list installation identification number, name and address for each facility) for (insert "sudden accidental occurrences", "nonsudden accidental occurrences", or "sudden and nonsudden accidental occurrences"; if coverage is for multiple facilities and the coverage is different for different facilities, indicate which facilities are insured for sudden accidental occurrences, which are insured for nonsudden accidental occurrences, and which are insured for both.) The limits of liability are (insert the dollar amount of the "each occurrence" and "annual aggregate" limits of the Insurer's liability), exclusive of legal defense costs. (If the certificate is for an excess insurance policy, this last sentence should be replaced by a sentence which reads "The limits of liability are $ _____ each occurrence and $ _____ annual aggregate for bodily injury and property damage combined in excess of the underlying limits of $ _____ each occurrence and $ _____ annual aggregate", with the appropriate amounts indicated.) The coverage is provided under policy number ___, issued on (date). The effective date of said policy is (date).

(ii) The Insurer further certifies the following with respect to the insurance described in item (I):

(I) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy.

(II) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in Rule 1200-1-11-.05(8)(n)6 or Rule 1200-1-11-.06(8)(n)6.

(III) Whenever requested by the Commissioner of the Tennessee Department of Environment and Conservation or his designee, the Insurer agrees to furnish to the Commissioner or his designee a signed duplicate original of the policy and all endorsements.

(IV) Cancellation of the insurance, whether by the insurer, the insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the hazardous waste management facility, will be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the Division Director.

(V) Any other termination of the insurance will be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Division Director.

I hereby certify that the wording of this instrument is identical to the wording specified in Tennessee Department of Environment and Conservation Rule 1200-1-11-.06(8)(p)10 as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in the state of Tennessee.

(Signature of Authorized Representative of Insurer)_____

(Type Name)_____

(Title) Authorized Representative of (Name of Insurer)_____

(Address of Representative)_____

* * * * * * * * * * * * *

11. IRREVOCABLE STANDBY LETTER OF CREDIT

A letter of credit, as specified in Rule 1200-1-11-.05(8)(n)8 or part (n)8 of this paragraph, must be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

IRREVOCABLE STANDBY LETTER OF CREDIT

Name and Address of Issuing Institution_____
_____

(Address to Division Director)

Dear Sir or Madam: We hereby establish our Irrevocable Standby Letter of Credit No. _____ in the favor of any and all third-party liability claimants, at the request and for the account of (owner's or operator's name and address) for third-party liability awards or settlements up to (in words) U.S. dollars $_____per occurrence and the annual aggregate amount of (in words) U.S. dollars $_____, for sudden accidental occurrences and/or for third-party liability awards or settlements up to the amount of (in words) U.S. dollars $_____ per occurrence, and the annual aggregate amount of (in words) U.S. dollars $_____, for nonsudden accidental occurrences available upon presentation of a sight draft, bearing reference to this letter of credit No. ___, and

(1) a signed certificate reading as follows:

CERTIFICATION OF VALID CLAIM

The undersigned, as parties (insert principal) and (insert name and address of third-party claimants), hereby certify that the claim of bodily injury (and/or) property damage caused by a (sudden or nonsudden) accidental occurrence arising from operations of (principal's) hazardous waste treatment, storage, or disposal facility should be paid in the amount of $ _____. We hereby certify that the claim does not apply to any of the following:

(i) Bodily injury or property damage for which (insert principal) is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that (insert principal) would be obligated to pay in the absence of the contract or agreement.

(ii) Any obligation of (insert principal) under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(iii) Bodily injury to:

(I) An employee of (insert principal) arising from, and in the course of, employment by (insert principal); or

(II) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by (insert principal). This exclusion applies:

I. Whether (insert principal) may be liable as an employer or in any other capacity; and

II. To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in subitems I and II of this item.

(iv) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(v) Property damage to:

(I) Any property owned, rented, or occupied by (insert principal);

(II) Premises that are sold, given away or abandoned by (insert principal) if the property damage arises out of any part of those premises;

(III) Property loaned to (insert principal);

(IV) Personal property in the care, custody or control of (insert principal);

(V) That particular part of real property on which (insert principal) or any contractors or subcontractors working directly or indirectly on behalf of (insert principal) are performing operations, if the property damage arises out of these operations.

(Signatures)
Grantor_____

(Signatures)
Claimant(s)_____

or

(2) a valid final court order establishing a judgment against the Grantor for bodily injury or property damage caused by a sudden or nonsudden accidental occurrence arising from operation of the Grantor's facility or group of facilities.

This letter of credit is effective as of (date) and shall expire on (date at least one year later), but such expiration date shall be automatically extended for a period of (at least one year) on (date) and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify you, the Division Director, and (owner's or

operator's name) by certified mail that we have decided not to extend this letter of credit beyond the current expiration date.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us.

In the event that this letter of credit is used in combination with another mechanism for liability coverage, this letter of credit shall be considered (insert "primary" or "excess") coverage.

We certify that the wording of this letter of credit is identical to the wording specified in Tennessee Rule 1200-1-11-.06(8)(p)11 as such regulations were constituted on the date shown immediately below.

(Signatures(s))_____

(Name(s))_____

(Title(s))_____

(Date)_____

This credit is subject to (insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published and copyrighted by the International Chamber of Commerce" or "the Uniform Commercial Code").

* * * * * * * * * * * * *

12. PAYMENT BOND

A surety bond, as specified in Rule 1200-1-11-.05(8)(n) or part (n)8 of this paragraph, must be worded as follows except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

PAYMENT BOND

Surety Bond No. (Insert Number)

Parties (insert name and address of owner or operator), Principal, incorporated in (Insert State of incorporation) of (Insert city and State of principal place of business) and (Insert name and address of surety company(ies)), Surety Company(ies), of (Insert surety(ies) place of business).

Installation Identification Number, name, and address for each facility guaranteed by this bond:

_____

	Sudden Accidental Occurences	Nonsudden Accidental Occurences
Penal Sum Per Occurence	(insert amount)	(insert amount)
Annual Aggregate	(insert amount)	(insert amount)

Purpose:

This is an agreement between the Surety(ies) and the Principal under which the Surety(ies), its (their) successors and assignees, agree to be responsible for the payment of claims against the Principal for bodily injury and/or property damage to third parties caused by ("sudden" and/or "nonsudden") accidental occurrences arising from operations of the facility or group of facilities in the sums prescribed herein; subject to the governing provisions and the following conditions:

Governing Provisions:

(i) Sections 68-212-107 and 68-212-108 of the Hazardous Waste Management Act of l977, as amended (Tennessee Code Annotated, Title 68, Chapter 212, Part 1).

(ii) Rules and regulations of the Tennessee Division of Solid Waste Management, particularly ("Rule 1200-1-11-.05(8)(n)" or "Rule 1200-1-11-.06(8)(n)") (if applicable).

(iii) Applicable rules and regulations of the Tennessee Department of Commerce and Insurance and any other applicable laws or regulations.

Conditions:

(i) The Principal is subject to the applicable governing provisions that require the Principal to have and maintain liability coverage for bodily injury and property damage to third parties caused by ("sudden" and/or "nonsudden") accidental occurrences arising from operations of the facility or group of facilities. Such obligation does not apply to any of the following:

(I) Bodily injury or property damage for which (insert principal) is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that (insert principal) would be obligated to pay in the absence of the contract or agreement.

(II) Any obligation of (insert principal) under a workers' compensation, disability benefits, or unemployment compensation law or similar law.

(III) Bodily injury to:

I. An employee of (insert principal) arising from, and in the course of, employment by (insert principal); or

II. The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by (insert principal). This exclusion applies:

A. Whether (insert principal) may be liable as an employer or in any other capacity; and

B. To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in sections A and B.

(IV) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(V) Property damage to:

I. Any property owned, rented, or occupied by (insert principal);

II. Premises that are sold, given away or abandoned by (insert principal) if the property damage arises out of any part of those premises;

III. Property loaned to (insert principal);

IV. Personal property in the care, custody or control of (insert principal);

V. That particular part of real property on which (insert principal) or any contractors or subcontractors working directly or indirectly on behalf of (insert principal) are performing operations, if the property damage arises out of these operations.

(ii) This bond assures that the Principal will satisfy valid third party liability claims, as described in condition (I).

(iii) If the Principal fails to satisfy a valid third party liability claim, as described above, the Surety(ies) becomes liable on this bond obligation.

(iv) The Surety(ies) shall satisfy a third party liability claim only upon the receipt of one of the following documents:

(I) Certification from the Principal and the third party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

Certification of Valid Claim

The undersigned, as parties (insert name of Principal) and (insert name and address of third party claimant(s)), hereby certify that the claim of bodily injury and/or property damage caused by a (sudden or nonsudden) accidental occurrence arising from operating (Principal's) hazardous waste treatment, storage, or disposal facility should be paid in the amount of $(_____).

(Signature)_____
Principal)

Subscribed and sworn to before me this _____ day of _____, _____

_____
Notary Public

My commission expires on the _____ day of _____, _____

(Signature(s))_____
Claimant(s)

Subscribed and sworn to before me this _____ day of _____, _____

_____
Notary Public

My commission expires on the _____ day of _____, _____

or

(II) A valid final court order establishing a judgment against the Principal for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Principal's facility or group of facilities.

(v) In the event of combination of this bond with another mechanism for liability coverage, this bond will be considered (insert "primary" or "excess") coverage.

(vi) The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond. In no event shall the obligation of the Surety(ies) hereunder exceed the amount of said annual aggregate penal sum, provided that the Surety(ies) furnish(es) notice to the Division Director forthwith of all claims filed and payments made by the Surety(ies) under this bond.

(vii) The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and the Division Director, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by the Principal and the Division Director, as evidenced by the return receipt.

(viii) The Principal may terminate this bond by sending written notice to the Surety(ies) and to the Division Director.

(ix) The Surety(ies) hereby waive(s) notification of amendments to applicable laws, statutes, rules and regulations and agree(s) that no such amendment shall in any way alleviate its (their) obligation on this bond.

(x) This bond is effective from (insert date) (12:01 a.m., standard time, at the address of the Principal as stated herein) and shall continue in force until terminated as described above.

In Witness Whereof, the Principal and Surety(ies) have executed this Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in Tennessee Rule 1200-1-11-.06(8)(p)12, as such regulations were constituted on the date this bond was executed.

PRINCIPAL

(Signature(s))_____

(Name(s))_____

(Title(s))_____

(Corporate Seal)

CORPORATE SURETY(IES)

(Name and address)
State of incorporation: _____
Liability Limit: $_____

(Signature(s))_____

(Name(s) and title(s))_____

(Corporate seal)

(For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.)

Bond premium: $_____

* * * * * * * * * * * *